THINK LIKE A GRANDMASTER

ALEXANDER KOTOV

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POPULAR

Think Like a Grandmaster

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+	Check
!	Good move
!!	Brilliant move
?	Bad move
??	Blunder
#	Mate
(D)	Diagram follows

Preface

An immense number of books have been written on chess. Some chess writers annotate recent games, others compile and bring up to date works on opening variations, but, strange as it may seem, no one has had the idea of describing the methods by which the leading players of our time have reached the peak of their playing strength. Yet a study of these methods would greatly facilitate the process of mastering the intricacies of the game.

In this book the author describes how Botvinnik, Tal, Smyslov, Petrosian, Keres, Bronstein and many other leading grandmasters studied chess theory, and trained themselves to understand the mysteries of chess strategy and tactics. They themselves have revealed some of their methods in articles and game annotations, while I have become acquainted with others from personal conversations with my fellow grandmasters.

The reader will also find an account of my own personal experience – my achievements in the field of chess are the result of immense hard work in studying theory, and I flatter myself that this experience will prove to be of interest to the reader.

Chess is a complex game, yet millions of enthusiasts are fascinated by it. Some of them reach the playing strength of a first or second category player, while others are satisfied to be known all their life as ‘a beginner’. Yet surely even a weak player would like to win a chess title and be known

as master, or even grandmaster. If someone could only show them how to reach this goal, then many of these enthusiasts would be prepared to set off along the long and irksome road of tournament play with all its exciting and nerve-racking experiences.

How then does one become a grandmaster? Is it the case that a strong player's abilities are purely natural, and that hard work cannot change anything? Naturally there must be some inherent ability, but as in other spheres of human endeavour the main factor is immense, unstinting effort to master the skills of chess strategy and tactics.

That great chess thinker Emanuel Lasker asserted that in the space of 100 hours he could produce a first-category player from a young man of average ability. Could one go further than that? Lasker never had occasion to prove the validity of his claim; the question naturally arises: could one by dint of careful study and hard work go as far as becoming a master or in the end a grandmaster?

My own experience tells me that such study and hard work do lead to immense improvements in one's practical results. I would remind the reader that up to 1938 I had never managed to reach master standard, but my study of the game in the period 1936-37 led suddenly to a 'great leap forward'. I gained the master title in 1938 and only one year later that of grandmaster. It follows that one can become a grandmaster by one's own endeavours: one merely has to work hard at it. How exactly to go about it is contained in this book.

A few points are worth noting:

1) My desire to make the book as clear and helpful as possible has led me to employ new names for some strategic

laws and concepts. This was not done in an attempt to try for an unnecessarily scientific approach, but merely to help the memorisation of important points.

2) The book makes use to a large extent of the games and advice of those Soviet grandmasters who belong to what is now called the older generation. The reason for this is that all my chess career I have rubbed shoulders with Botvinnik, Keres and Smyslov. The younger grandmasters, on the other hand, are busy with their current tournament battles and write less about their thought processes at the board, normally restricting themselves to giving concrete variations.

3) The book contains games by the author – again easily understandable as, in aiming to describe the secrets of the chess mind, I have naturally had to dig down deep into my own brain.

So, dear reader, forward into battle, to storm the heights of grandmaster chess!

Introduction: An Unusual Experiment

We shall now try to describe the complex process of thinking which takes place in a grandmaster's mind during play. To explain his thought processes as clearly as possible let us try a little experiment that was suggested to me by the method of studying mechanics in high school. First of all one studies Statics – the effect of forces on a body at rest -and then Dynamics, in which the same phenomena are studied in motion. So, too, we shall first consider how to think about moves from the static point of view, and then later in the book from the dynamic.

Let us then imagine the room where a top-class tournament is being played. Let us go on to the stage and ask one of the players, for example Polugaevsky, to give up his seat to us. Let us now ask Smyslov to tell us straight away without any further consideration the course of his thoughts as he studies a position in which he, White, is to move.

I can be certain that his first reaction would be count how many pawns there are. As a rule a grandmaster can take in at a glance, without counting, how many pieces there are. However, he may at times also count the pieces. We now assume that Polugaevsky has not sacrificed anything and so material is level.

The next stage in Smyslov's thinking will be to clarify the following points:

First, from which opening has this position arisen. If not many moves have been made, he will be able to ascertain this from the pawn configuration and the position of the pieces. If we are well into the middlegame then one has to work on the remnants of the pawn structure, on the open files and diagonals and outposts for the knights.

Then there follows the question: have I ever had this position before, or has it ever occurred in games by other grandmasters? This is an important point in clarifying matters, as if one can call to mind similar positions from earlier games, then it is easier to reach an assessment of how things stand, and to hit upon the correct plan or analyse variations. Such a use of accumulated knowledge is an excellent way of saving thinking time as well as avoiding errors or the wrong plan.

This period of thought, which we call the clarification period, is very important. Here the main role is played by the knowledge, experience and erudition of the grandmaster. Naturally the memory plays its part in helping to bring to mind the moves played in games of long ago. One can find remarkable examples of this technique in the games of Alekhine and Botvinnik, who were thereby helped to produce great works of art.

Armed with these preliminary soundings, the grandmaster then attempts to assess the position. He not only has to solve the basic problem of who stands better; he also has to discern the nature of the position down to its smallest details. He will note the presence and comparative value of various open lines, all the while bearing in mind the concrete tasks that lie before him: occupy this open file or diagonal, close that one, on this file neutralise the action of the enemy rooks. He will also work out which important

outposts he should occupy with his knights, from which outposts he should drive out the enemy cavalry. It will become clear to him which of his pawns and those of the opponent are weak, where there are strong passed pawns. In a more subconscious than conscious way he will establish where there is co-operation and harmony between his pieces, and likewise for the opponent. He will say to himself mentally: this is what I have to put right; here is where I must regroup.

It will not cause Smyslov much trouble to establish which side controls the centre, and what is the influence on the centre of this or that piece. Then he will assess the value of each side's pawn chains, and find out where pawn advances are possible. After all this he will understand more clearly who has the better position, who has the initiative, who must attack, who will be forced to defend. He will decide where White must attack if Black merely defends, or instead tries to counter-attack on the flank. Or will Black try for a blow in the centre – a grandmaster knows full well that the best answer to a flank attack is a counter-blow in the centre.

Finally, if the position is even, Smyslov will decide that he must manoeuvre quietly so as to provoke weaknesses in the enemy camp.

This then is the way that a grandmaster in the tournament room goes about assessing a position. We cannot claim that he will deal with the elements of the position in this precise order. Much of what we have categorised he will probably entrust to his intuition, but in one way or another the various problems will be considered and solved.

How much time does this process take? Naturally this depends on the ability of the grandmaster and on the

special features of each particular position. There is also the element of temperament. It is well known that with some players sober analysis plays the main part, while with others, intuition developed by analytical practice predominates. Assessing a position is very important and a lot of time is devoted to it.

Only when he has gone through this preparatory work will Smyslov start to draw up a plan. The direction of a player's thoughts is governed principally by the features of a given position, but no small part belongs to the character of the player. Petrosian would most likely give first thought to how to defend his weaknesses, whereas Tal would probably start to look for the chance to prepare a sacrifice.

So in one way or another our grandmaster will decide the general plan of campaign, where to direct his pieces, what to attack, and in case of necessity how to defend. Along with this general plan, he will have a more concrete plan, which decides what his next few moves will be: occupy this square, exchange that pawn, etc. He will also see what his opponent's plan is, and how he can cross it.

Up to this stage a grandmaster's thoughts have been based on general ideas and strategic principles. Now, at long last, he will start looking for the best move. He will establish what moves are possible, and how they fit in with his plan. Then he will begin analysing many variations. For each of the moves he will examine, he will foresee the opponent's reply, then his best answer and so on. Only after finishing this immense task, now purely analytical, will Smyslov move a piece and stop his clock. Thinking over, move made!

Our experiment has enabled us to examine the sequence of a grandmaster's thoughts when he is choosing the best move

in a given position. We have also learned from it that a real chess player must have the following qualities:

1) He must be well up in modern opening theory.

2) He must know and keep in his memory the principles behind typical middlegame positions learned both from his own games, and from those of other players. The more a player knows and remembers, the easier it is for him to find a 'precedent', i.e. a position that has occurred before and which is similar to his own present position. Naturally, it is not a question of mechanical memorising, but of knowing methods and possibly separate moves and combinations employed at some time or other and appropriately assessed in subsequent notes and analysis. We shall call these first two qualities with good reason 'chess erudition'.

3) A grandmaster must be able to assess a position accurately and correctly.

4) No less important is the ability to hit upon the right plan, which must meet the demands of the given position.

5) A grandmaster must be able to calculate accurately and quickly all the significant variations that might arise in the subsequent course of play.

These then are the most important qualities which players should develop within themselves, mainly by practice, analysis and personal effort. We shall now examine all these qualities and show how they can be acquired by dint of hard work. To facilitate their treatment we shall deal with them in a different order.

1 Analysis of Variations

Do you Know how to Analyse?

Recently I was invited to the closing ceremony of a team tournament in which both candidate masters and first-category players were playing. I asked my audience what they would like me to talk to them about, and I was inundated with requests. Some players asked me to demonstrate an interesting combination, while others wanted to know how to play the Sicilian Defence correctly for Black.

'But do you know how to analyse variations?' I asked my listeners, and without giving them time to reply went on, 'I will show you how to analyse variations and if I'm wrong, then stop me. Let us suppose that at one point in your game you have a choice between two moves, ♖d1 or ♘g5. Which should you play? You settle down comfortably in your chair and start your analysis by silently saying to yourself the possible moves. "All right, I could play ♖d1 and he would probably play ...♗b7, or he could take my a-pawn, which is now undefended. What then? Do I like the look of the position then?" You go one move further in your analysis and then you pull a long face – the rook move no longer appeals to you. Then you look at the knight move. "What if I go ♘g5? He can drive it away by ...h6, I go ♘e4, he captures it with his bishop. I recapture and he attacks my queen with his rook. That doesn't look very nice... so the knight move is no good. Let's look at the rook move again. If he plays ...♗b7 I can

reply f3, but what if he captures my a-pawn. What can I play then? No, the rook move is no good. I must check the knight move again. So, ♘g5, h6; ♘e4, ♗xe4; ♕xe4, ♖d4. No good! So I mustn't move the knight. Try the rook move again. ♖d1, ♕xa2." At this point you glance at the clock. "My goodness! Already 30 minutes gone on thinking whether to move the rook or the knight." If it goes on like this you'll really be in time trouble. And then suddenly you are struck by the happy idea – why move rook or knight? "What about ♗b1?" And without any more ado, without any analysis at all you move the bishop, just like that, with hardly any consideration at all.'

My words were interrupted by applause. The audience laughed, so accurate was my picture of their trials and tribulations.

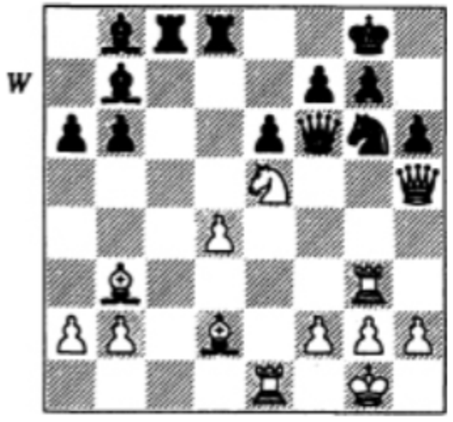
When I revealed that I was writing a book to tell all that I knew about analysis, based on what I had learned from other grandmasters and what I had discovered myself, I was rewarded yet again by applause. Thus I came to realise that players even in high grades need such guidance. Then I said jokingly, 'Botvinnik is working hard at trying to make a computer play chess as well as a human being, so let me teach human beings to analyse with the accuracy of a machine.'

The example I have described of incorrect, unsystematic thinking is quite common even with players of real ability and high gradings. They suddenly abandon their analysis and make a move which they haven't examined properly at all. Let us consider one such case.

White's attack on the kingside looks very threatening, and naturally the master who was White tried to find a concrete way to shatter the enemy king or to get some decisive

advantage. It is not very difficult to see this concrete line must involve a sacrifice.

'I have to sacrifice,' the master told himself, 'but which piece? There are several possibilities: 26 ♗xh6, 26 ♘xg6 or 26 ♘g4 followed by 27 ♘xh6+ Which then? Let us analyse 26 ♘xg6 ♗xg3 27 hxg3 fxg6 28 ♖xe6 gxh5 29 ♖xf6+ ♔h7. The exchange down, the d-pawn weak, Black's bishop is strong. No, that's not it. What if 26 ♗xh6? Let's have a look. 26...gxh6 27 ♕xh6 ♗xe5 28 ♖xe5 ♕g7 29 ♕e3 (29 ♖xg6 ♕xg6!) 29... ♗d5 and here White has nothing concrete.



'Possibly 26 ♘g4 is stronger? Where will the black queen go? f5 is bad because of 27 ♘xh6+ gxh6 28 ♕xf5 exf5 29 ♖xg6+ ♔h7 30 ♖xh6+ ♔g7 31 ♖h4. Two pawns up, White stands clearly better. Nor does 26...♕xd4 save him, since then 27 ♘xh6+ gxh6 28 ♖xg6+ or 28 ♖xe6! and the black king cannot be defended.

'So 26 ♘g4 is good? But what if 26...♕h4? Then 27 ♘xh6+ ♔f8!. No, White cannot allow that; the queens are exchanged

and all his pieces are *en prise*. So ♘g4 doesn't work. Let's look at the other captures on h6 and g6 again.'

And once again his thoughts dwelt on the various ramifications of those two moves, and yet again the resulting positions did not appeal to the master. Once more he returned to consider 26 ♘g4 and once again he did not find a win there. How many times he jumped from one variation to the other, how often he thought about this and that attempt to win, only he can tell. But now time-trouble came creeping up and the master decided to 'play a safe move' which did not demand any real analysis: 26 ♗c3. Alas, this was almost the worst move he could have played. Black replied with the decisive 26...♘f4 and after 27 ♕g4 h5 28 ♕d1 h4 White was forced to resign. Note in passing that White was wrong to reject 26 ♘g4. After 26...♕h4 27 ♘xh6+ ♔f8 28 ♕xh4 ♘xh4 29 ♘xf7 ♔xf7 30 ♗xe6+ ♔f8 31 ♖g4 ♘xg2 32 ♗b4+ ♗d6 33 ♗xd6+ ♖xd6 34 ♗xc8 ♘xe1 35 ♗xb7 White would win.

Can you remember cases when this happened to you in tournament games? No doubt you can! So let us discuss how to learn to think about possible moves with the greatest efficiency.

Historical Digression

Practice has shown that only a few players have mastered the technique of analysis; even highly rated players are lacking in this respect.

In chess circles, where one hears many apt sayings, there is a common joke that no type of exercise can change a player's playing strength. Wits like to quote the words of Ostap Bender (*Translator's note:* One of the main characters in the

well-known satirical novels by Ilf and Petrov, *The Twelve Chairs* and *T*he Golden Calf. One of the jokes of the book was that Bender, who could not play chess, gave lectures and displays on the game!) who in his famous chess lecture said, 'The blonde plays well and the brunette plays badly, and no lectures will change this state of affairs!' However, the experience of many players of widely different playing strength shows that the opposite is true.

We shall be mentioning again the need for regular self-examination, for the need to summarise the lessons of the tournaments we have played in. It is by means of such self-criticism that we can best clarify the faults of our chess thinking. To give the reader a better idea of what I mean I shall tell you about the work I did myself in this field, work which gave much better results than I expected.

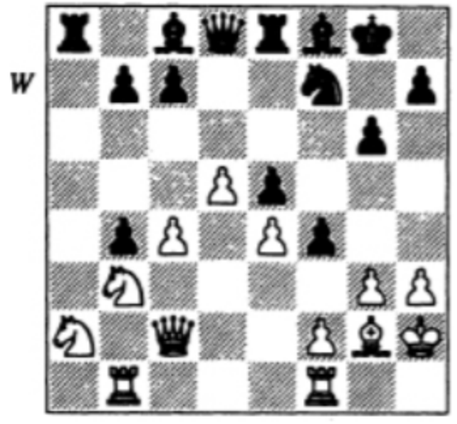
In the period 1935-36 I had managed to take first prize in a number of first-category tournaments. I had played with success in two Moscow championships, but all the same I was not satisfied with my play. When I did a critical survey of my games I came to the conclusion that there were serious defects in my play. I am looking, as I write this, at the many exercise books that I filled in those days with notes to my games. Believe me, they are full of harsh self-critical comments. No splenetic annotator ever gave such angry assessments to my moves as I did. I once wrote in the press: 'Most of all it became clear to me that my main trouble was not superficial knowledge of the openings or poor endgame technique, but my limited understanding of the middlegame. My worst fault was an inability to analyse variations. I would spend far too much time examining comparatively simple positions, which often resulted in time-trouble. Moreover, I often made serious blunders.

Finally, after the game I would always find out that my opponent had seen much more at the board than I had. It became clear to me that I had a lot of hard work to do on mastering the technique of analysis.'

This was how I expressed it in public, but in my exercise books I put it much more strongly. 'I had worked out the following variations at random, and was duly punished by my opponent. Such vague analysis is the main drawback in my play and I must make every effort to root it out.' That was what I wrote in my notes to my game with A. Yeltsov. 'A lack of desire really to go into concrete variations thoroughly, a vague wandering about, those are my characteristic mistakes in my play in the 1936 Moscow championship,' was another gloomy summing-up.

I was particularly discouraged by my game with Panov (Black) which after a sharp opening reached the following position.

White's attack on the queenside, so it seemed to me, was developing in a systematic and logical way. I judged that the 'ugly' formation of the black pieces was proof of his serious positional difficulties. In the game there now came 22 c5 g5! after which it suddenly became aobvious that Black had very dangerous threats. The main point, however, was that his kingside pieces which I had thought gave the impression of awkwardness and lack of co-operation were working together very well, whereas my 'nicely placed' pieces were unable to parry his nasty threats.



There now followed 23 ♖fd1 f3 24 h4 ♘xe4 25 ♗xf3 ♖xa2 26 ♕xa2 ♘c3 27 ♕d2 ♕f6 and Black has a winning game. The finish was just punishment for my ill-founded optimism: 28 ♗g2 e4 29 ♖bc1 ♘xd1 30 ♖xd1 ♕c3 31 ♕e3 ♗f5 32 ♔h1 ♕xe3 and Black easily won the ending.

After the game we analysed several variations. Panov told me that after 22...♘g5! he thought White had no good defence. If 23 ♖fe1 then 23...f3 24 ♗f1 (24 h4 ♘xe4 25 ♖xe4 fxg2 with the terrible threats of 26...♕xd5, 26...♕d7 and 26...♗f5) 24...♗xh3! 25 ♗xh3 ♘xh3 26 ♔xh3 ♕g5 27 g4 ♗e7 28 ♔g3 ♕f4+ 29 ♔h3 ♕h6+ 30 ♔g3 ♗h4+ 31 ♔xf3 ♖f8+ 32 ♔g2 ♖xf2+ wins the queen.

Black's whole manoeuvre – his original plan and the unexpected sacrifice – are attractive. These possibilities which were hidden in the position remained a mystery for me to the end of the game. I had not examined a single one of the tactical operations given above. Here is what I wrote in my summary of the tournament about my misconceptions in this game: 'I was not able to find a single one of the variations and combinations while I was at the board. I didn't even suspect that there was a combination coming at move 24, and I was very surprised when Panov showed it to me. To what a laughable extent my thinking is based on general principles and plans.'

In passing I did the following summary of the thinking time I took in the games of the 1935 Moscow championship: 'From the 17 games, I was in serious time-trouble in 7 games, in simple time-trouble (5 minutes for 8-10 moves) in 5 games, not in time-trouble in 5 games (in 3 of which the game did not last long enough for the time control to matter). In time-trouble I played badly, most of the time going on mixing up variations and general reflections.' Well then, that's pretty clear. Such severe self-criticism presupposes that the next step will be efforts to root out the faults, and I started to work.

Having examined the games of other players, particularly masters, and read the occasional comments on this point that appeared in game annotations, I became even more convinced that the ability to analyse clearly a sufficient number of variations so as to clarify the position was the basic condition for success. However, I also came to the conclusion that in their analysis some players make various mistakes. Some examine a few lines to a considerable depth, others analyse a large number of variations two or three moves deep. The correct solution is to find the golden mean, especially as one is playing against a time limit. It also became clear to me that the ability to orientate oneself in the labyrinth of possible variations is not only a natural gift, but also the result of serious and prolonged effort, and training.

How should one go about this training? Where was there a description of how to train and discipline one's thought? There were no books on the subject, and it did not seem possible to get help from anyone else, so I had to fend for myself. I chose a method which seemed to me the most rational, and fortunately it was the right one. Ever since that

time I have considered it the most effective method to get good results.

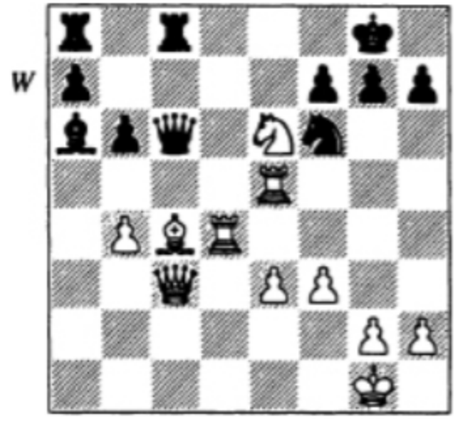
I selected from tournament books those games in which great complications had arisen. Then I played them through on a board but when I reached the crucial point where there were the greatest complications and the largest number of possible variations I stopped reading the notes. I either put aside the book or covered the page with a sheet of paper and set myself the task of thinking long and hard so as to analyse all the possible variations. All the time I tried to work myself into the frame of mind that I was sitting at the board in the tournament room.

Having spent between half an hour and an hour on this task I would sometimes (especially in very complex positions) write down the variations I had examined and then I would compare them with those of the annotator. At first there was a big discrepancy in favour of the latter, but then I learned how to widen my scope and delineate each variation with considerable exactitude. Naturally I analysed without moving the pieces so as to make it just like a tournament game.

In this fashion I examined a large number of very tricky and complicated positions. I remember one of them in particular. I think the reader will be interested to study the many variations which are the product both of the players themselves and of many annotators.

This position arose after Black's 23rd move in the game Flohr-Fine, Hastings 1935/6. The tension has reached its peak and the outcome can be resolved by the slightest inaccuracy. Grandmaster Flohr did in fact commit such an inaccuracy by playing the obvious 24 ♘d8?, which was convincingly refuted by Fine. He retreated his queen to

c7, after which he simply won the knight and all White's attempts to attack g7 came to nothing.



Annotators the whole world over analysed this position. A win for White found in one country was quickly refuted in articles published in another. A practically invisible finesse spotted by one analyst was soon shown to be an error on further examination. Finally the English master Winter found the one and only way to win. I had worked out the same line in my own analysis.

Look at the variations which arise after the winning pawn advance 24 b5!. The idea behind the move is not immediately apparent. It is to open the a3-f8 diagonal for the white queen to attack the enemy king. The win after the forced reply 24... ♗xb5 25 ♘xg7 is proved by the following variations:

1) 25...♔xg7 26 ♖g4+ when none of the various replies saves Black:

1a) 26...♔f8 27 ♕b4+.

1b) 26...♔h6 27 ♖eg5! and Black cannot meet the two threats of 28 ♕e5 and 28 ♕e1.

1c) 26...♔h8 27 ♖xb5 ♖g8 28 ♖xg8+ ♔xg8 29 ♖g5+ ♔h8! 30 ♖f5 ♔g7 31 g4 and White must win, though not without technical difficulties.

1d) 26...♘xg4 27 ♖g5+ ♔f8 28 ♕g7+ ♔e7 29 ♕xf7+ ♔d6 30 ♕f4+ with a decisive attack.

2) 25...♗xc4 26 ♘f5!. This strong move creates mating threats as well as the threat of a family check on e7. Black has various defensive tries but they are all unsatisfactory:

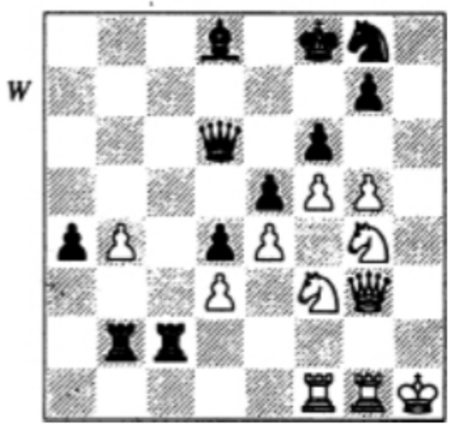
2a) 26...♕c7 27 ♖g4+ ♔h8 28 ♖e8+.

2b) 26...♔h8 27 ♖xc4 followed by ♖e8+.

2c) 26...♖c7 27 ♖g4+ ♔h8 28 ♖xc4 and 29 ♖e8+.

2d) 26...♕a4 (to prevent a queen check on the a3-f8 diagonal) 27 ♖e8+ ♖xe8 28 ♖g4+ ♔f8 29 ♕xf6 and after Black has run out of checks he has no defence against ♖g8+.

Training exercises of this sort gradually led to an improvement in the accuracy of my analysis, and I was able to penetrate more deeply into the secrets of very complicated positions. Finally I set up a personal record by analysing a possible variation from the fourth game of the Chigorin-Tarrasch match 24 moves deep. I confess I was very proud of this, though it is now clear to me that I was helped by the exceptional 'straight line' nature of the variation, which had comparatively few sidelines. Here is the position.



Chigorin went wrong by 48 gxf6 and after 48...♗xf6 49 ♕h3 a3 50 ♘xf6 ♕xf6 51 ♖g6 a2 52 ♖xf6+ gxf6 soon lost. After looking at the position many times, I found a win by

48 ♕h3!. I give the main variation and omit the subsidiary ones: 48...a3 49 ♕h8 fxg5 50 f6 ♕xf6 51 ♘xg5 a2 52 ♘h7+ ♔f7 53 ♘hxf6 ♘xf6 54 ♘h6+ ♔e6 55 ♖xf6+ gxf6 56 ♕g8+ ♔d7 57 ♖g7+ ♕e7 (57...♔c6 58 ♕a8+ and mate in two) 58 ♕d5+! ♔c8! (58...♔e8 59 ♖g8+ ♕f8 60 ♕f7+ wins) 59 ♕a8+ ♔d7 60 ♕b7+ ♖c7 61 ♖xe7+ ♔xe7 62 ♕xc7+ ♔e6. Now despite his material advantage White's win is not simple. He forces it by the following fine manoeuvre: 63 ♕c8+ ♔e7 (or 63...♔d6 64 ♘f5#) 64 ♘f5+ ♔f7 65 ♕d7+ ♔g6 66 ♕g7+ ♔h5 67 ♕h6+ ♔g4 68 ♕h4+ ♔f3 69 ♕g3+ ♔e2 70 ♕g2+ ♔xd3 71 ♕xb2.

After further examination of the position I found a quicker win for White, but this is not important. Such exercises, involving analysing and covering up the page with the grandmaster's notes, are very beneficial in perfecting the technique of analysis. If the reader will try it for himself, he will soon realise how effectively it helps him to improve. However, one must not restrict oneself to this method as there are others. Great help can be obtained by solving studies from a diagram without setting up the position on the board. One can read chess books 'blind' without using a set, there is analysis of positions where the task is given 'White to play and force a win' and so on. Every player who spends some time on such methods will soon notice an increase in his playing strength.

So I was able to discover for myself an excellent method for training in analysis. Subsequently I shared this discovery with a number of candidate masters and first-grade players who studied under me for several years in a Moscow chess club. They liked it, and I feel it played a part in improving their playing ability.

Later on I formulated for myself and also borrowed from other sources certain recommendations which one must know in analysing, particularly the concept of the 'tree of analysis', which I shall deal with a little later.

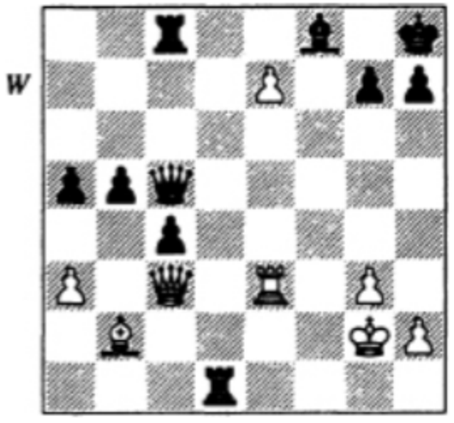
I soon realised that it is not enough for a master simply to analyse variations scrupulously just like an accountant. He must learn to work out which particular moves he should consider and then examine just as many variations as necessary – no more and no less. With superficial analysis one cannot get down to all the fine points of a position, but to get carried away by a large number of possible variations can lead to awkward consequences. I know players who consider an immense number of possibilities, then regularly get into time-trouble and so lose all the fruits of their labours.

In order to avoid this I tried to analyse the maximum number of variations, wrote them down, and then tried to establish which of them were worthy of consideration within the demanding conditions of tournament play, and which could be left out so as to save time. Normally a master decides this by intuition, but you have to develop your intuition. I managed to develop mine by the method described below and then I successfully tried out the same method in study groups of second- and third-category players.

(I shall deal later in detail with the question of choosing moves and variations. Here I describe the one example with which I began all my research.)

I once analysed in detail the apparently simple, but in fact very tricky position of the diagram. Then I asked the people in the group to study it and in the course of half an hour write down all the variations which they thought should be examined. They were not allowed to move the pieces. Then

we examined the position together and so exhausted all the possibilities it contained. It turned out that it was far from simple to discover all the special features of the position. This can be shown by the fact that one strong master in his notes wrote that White would win by 1 e8♕ and gave the beautiful variation 1...♖xe8 2 ♕xg7+ ♗xg7 3 ♖xe8+ ♕f8 4 ♖xf8#. He also took account of the cunning reply 1...♖g1+ which fails to 2 ♔h3 ♕f5+ 3 ♔h4. However, he failed to find the excellent rejoinder 1...♖d2+! and Black draws. Taking the rook is bad – 2 ♕xd2 ♖xe8 3 ♖xe8 ♕c6+ and 4...♕xe8.2 ♔f3 (or f1) loses to the reply 2...♕f5+, while after 2 ♔h1 there comes 2...♖d1+ with perpetual. Black has a very fine win after 2 ♔h3 viz. 2...♕f5+ 3 g4 ♕f1+ 4 ♔h4 ♖xh2+ 5 ♔g5 ♖c5+ 6 ♕(either!)e5 ♕f6#.



That is the way to work on the second important factor in developing analytical ability – the ability to find the really important lines.

A third factor which must be considered in this respect is speed of analysis, so important in practical play. Anyone who has ever been in time-trouble will not need convincing of that – he will know the value of the odd minute saved here and there.

I practised the following method: I would set up a complicated position and give myself the task of working out all the possible variations in the space of 20-30 minutes. Then I would write them down and check how well I had worked out all the hidden secrets. Gradually, I reduced the amount of time, and each time checked how well I had done. Soon I managed to get rid of superficiality and speed up my thinking.

If the reader finds that he often gets into time-trouble and just omits key variations when he tries to save time, then there is something wrong in his thought processes. Current tournament rules give a near to optimum thinking time for moves – on average about four minutes a move (*Editor's note:* Most events are now played at three minutes per move, but Kotov's argument is just as relevant – in tournament play, time is at a premium and inefficient analysis often proves costly near the end of the session).

This is quite adequate when you bear in mind that it is increased by quick play in the opening where well-known series of moves are normally played. If this time is not enough and your games are decided in time-trouble with its inevitable errors, then you must devote a lot of attention to mastering the technique of analysis.

Three factors guarantee finding the right move. They are: an accurate analysis of all variations that can be logically considered, confidence that you have taken account of all the best moves and strict economy in thinking time.

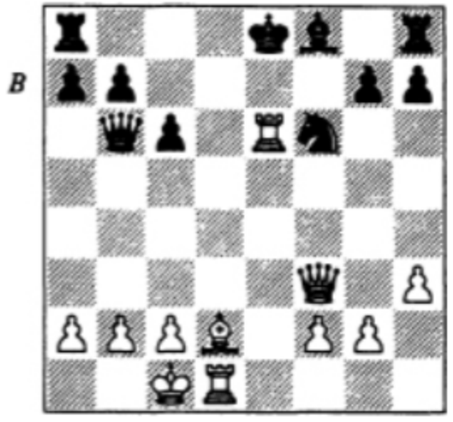
We shall deal with all three in turn and dissect the most complex and incomprehensible caprices affecting a player's thinking. We shall thus endeavour to give as accurate a

picture as possible of the complicated process that takes place when a chess player tries to find the best move.

The Tree of Analysis

The course of a player's thoughts when considering his move is best shown by a concrete example. The position in the diagram arose in Boleslavsky-Flohr, 18th USSR Ch (Moscow) 1950.

The game had begun thus: 1 e4 c6 2 ♘f3 d5 3 ♘3 ♗g4 4 h3 ♗xf3 5 ♕xf3 e6 6 d4 ♘f6 7 ♗d3 dxe4 8 ♘xe4 ♕xd4 9 ♗e3 ♕d8 10 0-0-0 ♘bd7 11 ♗c4 ♕a5 12 ♗d2 ♕b6 13 ♖he1 ♘xe4 14 ♖xe4 ♘f6 15 ♗xe6 fxe6 16 ♖xe6+



Now Flohr did not play 16...♔?f7, but tried 16...♗e7 and lost in the end. What interests us is how the game would have gone if Black had moved his king to f7, and how Boleslavsky would have worked out what to play in that event. We cannot be sure that the course of his thoughts was exactly as we describe it, but the general trend was bound to be as follows:

'How did I intend to play if he moved the king when I sacrificed the bishop?' is Boleslavsky's first thought and he

instantly remembers. 'Yes, 17 ♖xf6+. I remember thinking that I had a certain draw, while Black's king would have to move about in the centre being harassed by all my pieces. Could there be a win there? So 17 ♖xf6+ gxf6, and now what? I am a rook down, I must check or play some other forcing move. Only one move comes to mind: 18 ♔h5+, otherwise Black will find a way to get his queen over to defend. What do I get from my queen check? Is it a good move! I must work it out, the position isn't very complicated, I can analyse it right to the end. Let's analyse. I have enough time and the whole game is now in the balance. If I can find a mate then it's worth spending a few minutes on it. So, analyse!

'But do I need to sacrifice the rook at all? Could there be a simple way to exploit my initiative without a further sacrifice? How?' For a minute or so he examines the position with this in mind – is it essential to sacrifice? He quickly decides that he must. If 18 ♖de1 Black has many defences, such as 18...♕b5 or even 18...♖d8. It follows that the exchange sacrifice on f6 is not only the obvious move, but also the only winning attempt, while all the time White has a guaranteed draw.

So the grandmaster settles down comfortably in his chair and starts analysing. 'I play 17 ♖xf6+ gxf6 18 ♕h5+. Where can his king go? A lot of squares are possible – e7, e6, g7, g8. Four defences. Let me see if I can force mate or get a decisive advantage ... Start with e7 and e6 and leave the others till the end. They are more complicated ... So we have four candidate moves.

'1) 18...♔e7 19 ♖e1+ leaves Black in a bad way: 19...♔d6 20 ♗f4+ ♔d7 21 ♕f7+ intending 22 ♖e8+, 19...♔d8 20 ♕e8+ ♔c7 21 ♗f4+ ♗d6 22 ♖e7#, or 19...♔d7 20 ♕f7+ ♔d6 21 ♗f4+ ♔c5 22 ♗e3+. So, that's all right.

‘2) 18…♔e6 19 ♖e1+. This is also all right. Everything as in the first variation.

‘3) 18…♔g7. I have perpetual check by 19 ♕g4+ ♔f7 20 ♕h5+. What else is there? Aha, the bishop check wins out of hand. 19 ♗h6+ ♔g8 20 ♕g4+ ♔f7 21 ♖d7+ ♗e7 22 ♗g7+. Right, it’s going well, but what about g8? Analyse carefully!

‘4) 18…♔g8 19 ♕g4+. Quiet moves are no use; I’m a rook down. Now two defences: 19…♗g7 and 19…♔f7.

4a) 19…♗g7. What is there to think about? 20 ♗h6 ♕c7 21 ♖d7 wins. No, stop! The rook move is a gross blunder. He gives up his queen by 21…♕xd7! 22 ♕xd7 ♗xh6+ and I’m the one to resign. No, it’s not so simple. How do I meet 19…♗g7?’ And after further thought Boleslavsky finds two candidate moves, 20 ♕e6+ and 20 ♕c4+, which give him attacking chances, and he considers each in turn. ‘20 ♕e6+ ♔f8 21 ♗f4 ♖d8 22 ♖xd8+ ♕xd8 23 ♗d6+ ♕xd6 24 ♕xd6+ and White must win; or 20 ♕c4+ ♔f8 21 ♗b4+ and Black must give up his queen. So that makes the first variation clear. Now for the second.

‘4b) 19…♔f7 20 ♕c4+. This is strong. I’m not going to repeat moves. Then 20…♔g7 or 20…♔g6. Clearly not e8, right into the crossfire of all my pieces. But if he does? Maybe the few pieces I have left don’t frighten him? To be sure let’s check it.

‘4b1) 20…♔e8 21 ♖e1+ (better than 21 ♕e6+ ♗e7) 21…♗e7 (or 21…♔d8 22 ♕d3+ ♘c7 23 ♗f4+ ♔c8 24 ♖e8+) 22 ♗b4! ♕c7 23 ♕c5! and Black can resign.

‘4b2) 20…♔g7. Now White has no useful checks, but he can attack the queen, which is as good as a check. Yes, that’s quite a move! 21 ♗e3. This threatens a check with the rook

at d7. If 21...♕c7, then 22 ♕g4+ ♔f7 23 ♖d7+. There is just 21...♕b4 left, but then 22 ♖d7+ ♔g6 23 ♕f7+ ♔f5 24 g4+ ♔e4 25 ♕xf6 and he can't stop all the mate threats. I should think so too. King in the centre exposed to all my pieces!

'4b3) 20...♔g6. Can this save him and so refute the sacrifice on f6? How can that be, how can the king defend himself from the attack of my three pieces? Just look for the right move!'

And without much trouble White will find the win here too. 21 ♕e4+!. Moves which don't look too threatening at first sight can turn out to be decisive. 21...♔f7 22 ♗a5. White must threaten the rook check at d7 with gain of time. Two last ditch defences are possible, but neither works: 22...♕c5 23 ♖d7+ ♗e7 24 ♘b4 ♕g5+ 25 f4 and if 22...♗h6+, 23 ♔b1 ♖ad8 (23...♖hd8 24 ♕xh7+ ♗g7 25 ♕h5+ and 26 ♗xb6) 24 ♕c4+! ♔g7 25 ♕g4+ followed by 26 ♗xb6.'

'Well, thank goodness, everything is in order,' was Boleslavsky's probable reaction. What does he do then? Does he sacrifice on f6 immediately or does he check the variations once more? It all depends how much time he has left on his clock. If he has plenty of time he will allow himself to check everything again. He might even do this even if he is short of time. The reason for such 'squandering' of time is that this is the decisive moment in the whole game. White either mates or wins the queen, so he can risk getting into time-trouble. As a rule, however, a grandmaster will not start checking a second time all the variations which he has already examined. This is an unforgivable waste of time which can have grave consequences in the final phase before the time control, and moreover shows a lack of confidence in one's analysis. One must teach oneself to analyse accurately

and then place full confidence in the 'computer' which nature has provided us with.

Of the many scientific techniques studied at secondary-school level (and after) for clarifying problems, a particularly helpful one is the drawing of graphs and diagrams. Let us now depict in diagram form the analysis which we have just considered (see Fig. 1).

Here is what the analysis looks like. What we have produced reminds one of a family tree. The trunk of this tree is the main move we are considering. The opponent's replies form the four main branches, i.e. 1) 18...♔e7, 2) 18...♔e6, 3) 18...♔g7 and 4) 18...♔g8. These branches in their turn are divided into smaller branches and so on. The number of branches depends upon the special features of the position and our ability to find candidate moves, and so reveals the level of our analytical ability.

Fig. 1

We shall deal with other aspects of the analytical tree later, but now we can formulate a rule which one should try to assimilate from one's earliest attempts at self-training:

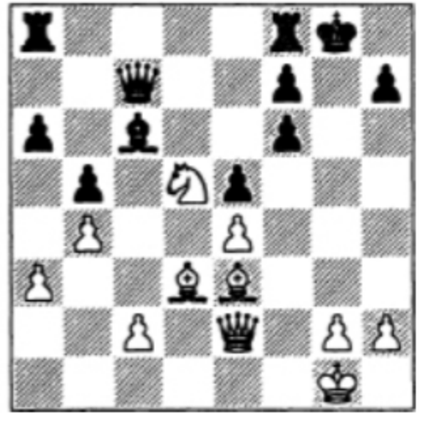
When analysing complicated variations, examine each branch of the tree once and once only.

You simply must not wander to and fro, here and there through the branches, losing time in checking your analysis. The reason for such double-checking can only be lack of confidence in oneself. It is better to suffer the consequences of an oversight than suffer from foolish and panicky disorder in analysis.

A critically-minded reader might here pose the question: 'What if none of the moves which I examine appeals to me? What should I do then?' In this case, the only advice I can give is: even if you are faced by such a critical situation do not repeat yourself. Can you be sure that you will find a fully satisfactory line? Of course not! And you will lose time. Take the best decision you can. Remember that Buridan's ass died because it could not make up its mind from which bundle of hay it should start eating. From two evils choose the lesser, but if you stand really badly then look round just once more for a saving move.

So that the reader can get more used to the concept of the analytical tree, and of analysing lines once and once only, let us examine another interesting example. The reader should draw up for himself in as detailed a manner as possible the analytical tree for the following position. I am sure this will bring both benefit and pleasure.

B



This position arose in Rossolimo-Nestler, Venice 1950. The American grandmaster had just sacrificed the exchange twice over. These sacrifices were based on intuition, but to some extent were backed up by concrete analysis. The point for us to analyse is Black's obvious defence 23...♕d6 and also White's attacking answer 24 ♕h5 (*Translator's note*: In the actual game Nestler played 23...♗xd5 which is considered as better than 23...♕d6 by Kotov in the Soviet tournament book).

Does White win then? If he does, how can we prove this by analysis? I must warn the reader that it will be far from easy to work out all the possible defences and attacks, so take the trouble to spend at least half an hour going through the text. To discover for yourself all Black's possible defences and White's attacking replies will take a great deal of time, but that is the way the reader should try to perfect his method of analysis!

White's intentions are clear. If it were his move, then he could play 25 ♕h6! and force the win of queen for knight as there is no other defence to the threat of 26 ♘xf6+ (25...♗xd5 opens the bl-h7 diagonal and diasater follows again at h7). Hence 25 ♕h6 is a threat which must be defended against. How?

First of all, according to our rule of analysing all possibilities in turn, we establish which are the candidate moves. We must not skimp this job, but be very conscientious over it. Miss out some insignificant move and it might turn out to be the one that would save the game. We repeat the rule: candidate moves must be established straight away and they must be clearly enumerated. This task cannot be split into parts by examining one move fully and then looking for the next one. This brings

disorganisation to your thinking. Without knowing how many candidate moves there are, you could devote too much time to one of them and when you finish examining its ramifications find that you just don't have enough time for the other possibilities.

So let us enumerate in a systematic way all the candidate moves. It is not hard to find that Black's defensive chances are enhanced by these moves: 1) 24...♔h8; 2) 24...f5; 3) 24...♗xd5. But this isn't all. Going deeper into the position we discover that there are many tricky points in playing a rook to e8, so as to meet 25 ♕h6 by 25...♖e6 defending f6. So we add two more candidates: 4) 24...♖ae8 and 5) 24...♖fe8. Before analysing, let us check to see if we have missed anything? Have you checked? You're right, there are no other candidates, so on to analysis!

1) 24...♔h8. Now 25 ♕h6 is met by 25...♖g8 and the rook defends the crucial h7 square from g7. How can White win? Having worked hard at the position the analyst will find in this position a manoeuvre which will prove very handy to him in other variations too. The point of the manoeuvre lies in the moves 25 ♗c5! ♕e6 26 ♗e7!!. Let us work out the consequences. If 26...♗xd5, 27 exd5 attacks the queen as well as threatening mate on h7. 26...♖g8 27 ♗xf6+ ♖g7 28 ♕g5 ♖ag8 29 ♘e7! is also a win. This position is quite pretty. If 29...♕xe7 then 30 ♗xg7+ ♖xg7 31 ♕xe7 wins, while any other 29th move is met by the decisive 30 ♘f5 or 30 ♘xg8.

2) 24...f5. This defence looks very sound since Black's queen is brought into the defence of his king-side. White, however, still has a win though it is far from obvious, by 25 ♗c5 (as before, the same *leitmotif*) 25...♕e6 (it is not hard to see that all other queen moves lose at once) 26 ♕g5+ ♔

h8 (26...♕g6 27 ♘e7+) 27 ♗xf8! ♕g6 (27...♖xf8 is bad because of 28 ♘f6 and now there is no answer to the threat of 29 ♕h6 attacking h7 and f8) 28 ♕xg6 hxg6 (28...fxg6 29 ♗d6 ♖e8 30 ♘e7 attacking the bishop and threatening 31 ♗xe5#) 29 ♗d6 and White gains a decisive material advantage.

3) 24...♗xd5 25 exd5. Mate on h7 is threatened and Black has many defensive moves to choose from. Will White force mate in the end, or not? That is the question we have to answer in our analysis. As the analysis is complex we again proceed as at the beginning and subdivide into the following five candidate moves: 3a) 25...♖fe8; 3b) 25...♖fd8; 3c) 25...♖fc8; 3d) 25...f5; 3e) 25...e4. Let us now move along all the subbranches of our tree of analysis.

3a) 25...♖fe8 26 ♕xh7+ ♔f8 27 ♗c5 winning the queen.

3b) 25...♖fd8 loses the queen as before.

3c) 25...♖fc8. Now c5 is guarded by the rook, but the simple 27 ♕h6, threatening 28 ♗xh7+, forces the win as the queen is now unguarded at d6, and ...f5 is thus ruled out.

3d) 25...f5 26 ♗xf5. Now there are only two reasonable defensive tries: 26...♖fc8 and 26...h6.

3dl) 26...♖fc8 27 ♗xc8 ♖xc8 28 ♕g4+ and 29 ♗xc8+.

3d2) 26...h6 27 ♗xh6 ♕f6 28 ♕g4+ ♔h8 29 ♖g5 ♕g7 30 ♗f6! ♕xf6 31 ♕h5+ and mate in two. It is hardly any consolation for Black that there is another win by 30 ♕h4+ and 31 ♗f6.

3e) 25...e4 26 ♗xe4 f5 27 ♗xf5 h6 28 ♕g4+ ♔h8 29 ♗d4+ f6 30 ♕g6 ♖a7 31 ♕xh6+ ♔g8 32 ♗e6+ ♖af7 33 ♗xf6 forcing mate on h8. Thus the apparently sound defence

of taking off the knight and then advancing the f-pawn is refuted. There remain two other main lines to consider.

4) 24...♖ae8 25 ♗c5 ♕d8 (otherwise after 25...♕e6 26 ♕h6 ♗xd5 27 exd5 the queen is attacked) 26 ♗xf8. Now equally bad for Black are 26...♖xf8 27 ♕h6 and 26...♗xd5 27 ♕h6! ♖xf8 28 exd5 with forced mate.

5) 24...♖fe8 (it turns out that this is the most stubborn defence and White's win is achieved only after a number of tricky points) 25 ♗c5! ♕d8 (here, too, this particular retreat is forced so as not to have the queen attacked by a pawn after 25...♕e6 26 ♕h6 ♗xd5 27 exd5) 26 ♗b6! ♕d6 27 ♗c7! ♕f8 28 ♘xf6+ ♔g7 29 ♗d6! leads to an amazing position.

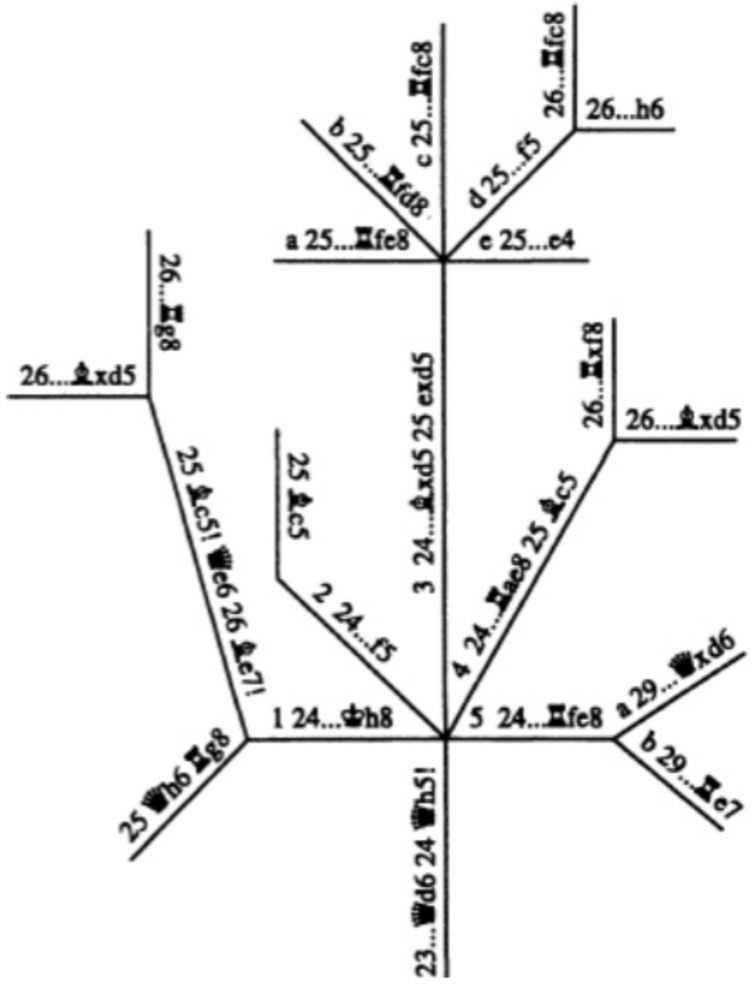
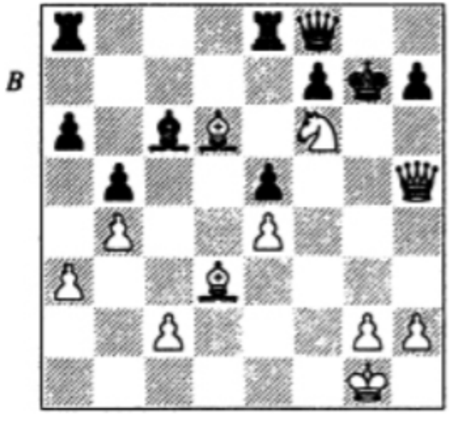


Fig. 2



Black loses in all variations, e. g.: 5a) 29…♕xd6 30 ♕g5+ and now 30…♔f8 31 ♘xh7#, or 30…♔h8 31 ♕h6 ♕xf6 32 ♕xf6+ and then 33 ♕xc6.

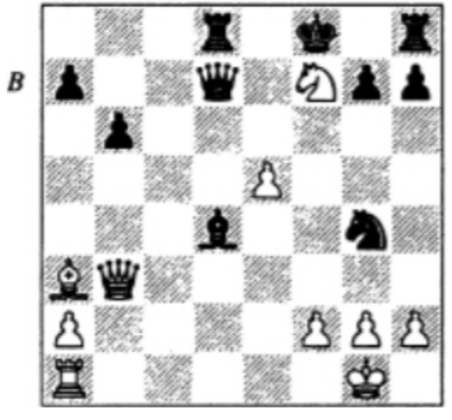
5b) 29…♖e7 30 ♗xe7 ♕xe7 31 ♕xh7+ ♔xf6 32 ♕h6#.

Now it only remains to depict all this gigantic labour of analysis on a tree. Examine Fig. 2 on the previous page. One must be a real Tarzan to move unscathed through such tangled thickets!

Forced and Unforced Variations

In the examples we have considered so far the variations were all markedly forced. However, this is not always the case and grandmasters sometimes have to examine in some detail unforced variations, and the tree of analysis can be very tangled. Before we consider this point, I will recommend the reader to analyse on his own one more position (see diagram below). White is attacking, Black defending and his replies are forced; often he has only one move at his disposal. I shall not give the tree, in the hope that the reader will draw it up for himself. An attentive study of the position will be of great benefit to the reader,

and once again I stress that he should work it out on his own before looking further down for the solution. As before I advise you to do this by gradually going in turn through all the variations which demand attention. I am working on the assumption that by now the reader has already achieved that state of disciplined thinking which will not allow him to go through variations more than once.



The diagram position arose in a game Boleslavsky-Ravinsky, USSR Trades Unions Championship 1949. Black tried 20...♖c5 and soon lost. The critical defence is 20...♔e8, and the question arises, what variations would occur after 21 ♘d6+ ♔f8?

Note by John Nunn: Kotov gave lengthy analysis indicating that the continuation 22 ♕f3+ ♘f6 23 ♖e1 is winning for White. Unfortunately, he overlooked that after 23...♗c5 24 exf6 ♕xd6 25 fxg7++ ♔xg7 26 ♗b2+ ♗d4 27 ♗xd4+ ♕xd4 28 ♖e7+ ♔h6 29 ♕h3+ ♔g5 30 ♕g3+, Black can play 30...♔f5 (Kotov only considered 30...♔h5) when White has nothing better than a draw by perpetual check.

Graham Burgess discovered an improvement for White, namely 22 ♕f3+ ♘f6 23 ♖d1!, which he analysed to a win for White in his book *Gambits* (pages 97 and 108).

However, the simplest win of all is 22 e6! and now:

1) 22...♕e7 23 ♘f5.

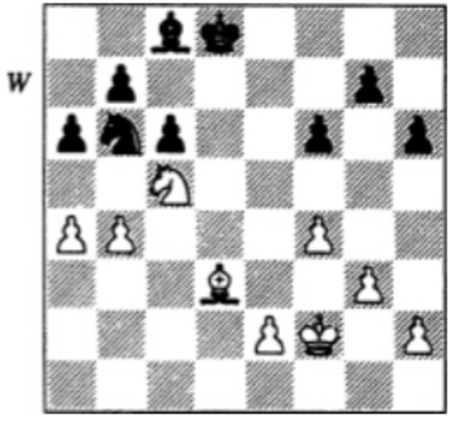
2) 22...♕c6 23 e7+ ♔xe7 24 ♕f7 mate.

3) 22...♗xf2+ 23 ♔h1 only opens up more avenues of attack.

4) 22...♕xd6 23 ♕f3+ ♗f6 (or 23...♘f6 24 ♕b7!) 24 ♗xd6+ ♖xd6 25 ♖e1 and Black must lose at least a piece, e.g. 25...♖d4 26 h3 ♘h6 27 e7+ ♔f7 27 ♕h5+, 25...♘h6 26 e7+ ♔f7 27 ♕b3+ ♔e8 28 ♕b5+ or 25...h5 26 h3 ♘h6 27 e7+ as before.

Now back to Kotov.

In the example we have just considered all the variations were of a markedly forced nature. The following example, which has been deliberately chosen from an endgame position, shows how even in simple positions it is possible to analyse many moves deep. The fact that the variations are not forced makes the task more difficult, but all the same in many cases a grandmaster does analyse everything in detail.



This position is from Levenfish-Flohr, Moscow 1936. Black has just played 33...♘c4-b6. Levenfish demonstrates a win for White by the following variations which he worked out. 'Black should have played for complications at all costs by playing 33...♘b2 intending 34...♘xd3+ and then 35...b6,'

he wrote in his notes to the game. White would have to play 34 a5 with the following possible ramifications:

1) 34...♔c7 35 ♔e3 ♘xd3 36 ♔xd3 b6 37 ♘a4! bxa5 38 bxa5 ♔d6 39 ♔d4 ♗g4 40 e3 ♗e2 41 ♘c5 ♗f1 42 e4 ♗e2 43 e5+ fxe5+ 44 fxe5+ ♔e7 45 h4 ♗f1 46 ♔e4 ♔f7 47 ♔f5 ♗h3+ 48 g4! g6+ 49 ♔f4 ♗f1 50 g5 h5 51 e6+ ♔e7 52 ♔e5 Ac4 53 ♘d7! ♗xe6 (53...♗b5 54 ♘b6 and ♘c8+) 54 ♘b8 ♗c4 55 ♘xc6+ ♔d7 56 ♘b4 ♔e7 57 ♔d4 ♗f1 58 ♔d5 ♗e2 59 ♘c6+ ♔f7 60 ♘e5+ ♔g7 61 ♔c6 wins.

2) 34...♘d1+ 35 ♔f3 and now: 2a) 35...♔c7 36 e4 h5 37 e5 fxe5 38 fxe5 ♗g4+ 39 ♔e4 with a won ending.

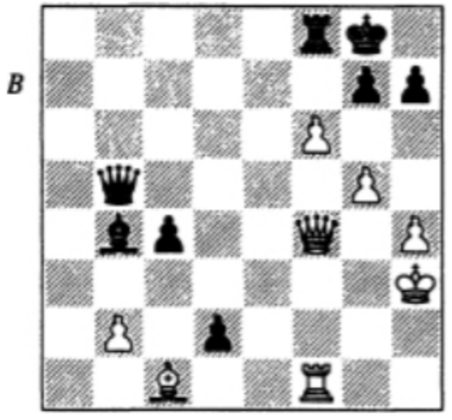
2b) 35...♘c3 36 ♗c4 ♔c7 37 e4 b6! 38 axb6+ ♔xb6 39 e5 fxe5 40 fxe5 ♘d5 (40...a5 41 e6) 41 ♗xd5 cxd5 42 e6 ♔c7 43 e7 ♗d7 44 ♘xa6+ ♔d6 45 ♔e3 ♔xe7 46 ♔d4 ♔d6 47 ♘c5 ♗b5 48 ♘b7+ ♔c6 49 ♘d8+ ♔d6 50 ♘f7+ ♔e6 51 ♘e5 ♔d6 52 ♘g6 ♗c4 53 ♘f4 and White will finally force a win.

As you can see some variations are analysed 27 moves deep, although they are not forced. You are entitled to ask how many of them were actually worked out at the board. I do not know, probably not all of them, but this example is quoted by us as a specimen of analysing unforced variations.

Different Types of Tree

The Bare Trunk

In annotating his game with Treybal in the Pistyan 1922 tournament Alekhine wrote of his 33rd move ...♕d7+: 'Black forces a winning king and pawn ending by means of the longest combination I have ever played.'



After 33...♕d7+ (according to Alekhine, 33...dxc1♕ 34 ♖xc1 ♖c8 35 ♕g4 gives White some drawing chances because Black's bishop is the wrong colour for the h-pawn) 34 ♔g2 d1♕! 35 ♖xd1 ♕xd1 36 ♕xc4+ ♖f7 37 ♕xb4 ♕xc1 38 ♕b8+ ♖f8 39 f7+! White wins back the rook, but this had been taken into account by Alekhine, who finishes the game by an elegant queen manoeuvre which he had analysed twenty moves deep, and that before making his 33rd move. This happens very rarely in tournament play.

In the game 39...♔xf7 was met by 40 ♕b3+, which lost at once, whereas the main line of Alekhine's combination follows after White's strongest move 40 g6+! when Black can neither take the pawn with his pawn because of perpetual check (♕b3-b8-f3-a3 always forcing the king to protect the rook) nor go to g8 because of 41 gxh7+.

However, Black does win by 40...♔xg6! 41 ♕xf8 ♕xb2+ 42 ♔f3 ♕c3+ 43 ♔g2 ♕d2+ 44 ♔g3 ♕e3+ 45 ♔g2 ♕e4+ 46 ♔g3 ♕e5+ 47 ♔g2 ♔h5! 48 ♕f3+ ♔xh4 49 ♕h3+ ♔g5 50 ♕xh7 ♕e2+ 51 ♔g3 ♕g4+ exchanging queens into an easily won king and pawn ending.

How did Alekhine manage to analyse so far? The answer is obvious – the point is that the initial position is an easy one and the whole combination has only one variation. If we

draw the tree of this combination then we do not get a proper family tree (see Fig. 3). There is no real tree, merely a bare pillar with a single offshoot.

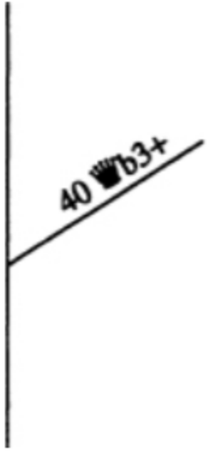


Fig. 3

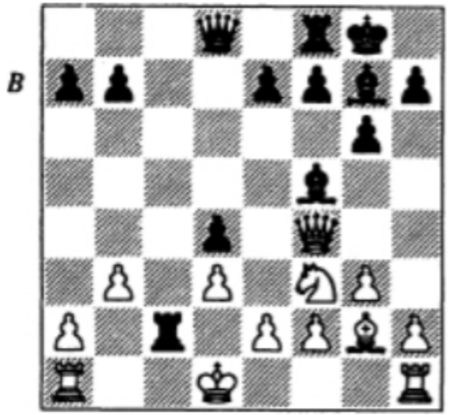
Analysis of such positions presents no real difficulties, especially when the opponent's replies, and therefore the variations, are forced. I quote two similar examples from my own games.

I reached the following position in a game against Rudakov (Tula) played when I was still a boy.

White, who was unable to castle, has just played 1 ♔e1-d1 hoping to simplify after 1...♕c8. In response Black sacrifices a rook to force a variation analysed 14 moves deep.

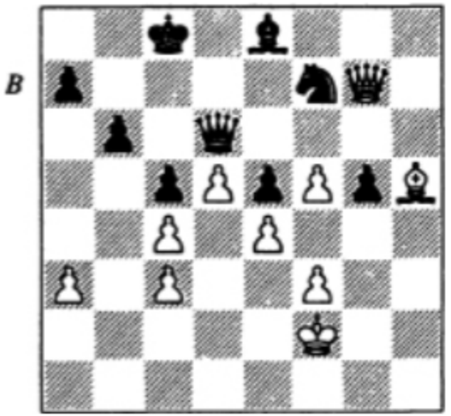
1...♕a5! 2 ♔xc2 ♕c3+ 3 ♔b1 (retreating to d1 would lose back the rook and then the queenside pawns would go too) 3...♗xd3+ 4 exd3 ♕xd3+ 5 ♔b2 (obviously bad is 5 ♔c1 ♖c8+ letting Black bring his rook into the attack with gain of time) 5...♕c3+ 6 ♔a3 (or 6 ♔b1 d3 winning) 6...♕c5+! 7 b4 (here come the only side-variations in the otherwise straightforward combination; if 7 ♔b2? then 7...d3+, while 7 ♔a4 allows quick mate by 7...b5+ 8 ♔a5 ♕b6+ 9 ♔b4 a5+ 10 ♔a3 ♕c5+ 11 ♔b2 d3+) 7...♕c3+ 8 ♔a4 b5+! 9 ♔xb5

(as is easy to see, 9 ♔a5 ♕c6! forces White to give up his queen to avoid mate) 9...e5! 10 ♕c1 ♖b8+ 11 ♔a6 ♕xb4 12 ♕c7 ♕a4+ 13 ♕a5 ♖b6+ 14 ♔xa7 ♕xa5#.



The reader may well find the following example to be a real chess curiosity.

Kotov-Plater, Pan-Slav Tournament, Moscow 1947 was adjourned in this position. The Polish master sealed the excellent move 43...♕h6!. By giving back the piece Black goes into an interesting ending in which it is far from easy for White to exploit his two extra pawns, as his king has no way of entering the enemy position.



44 ♕xh6 ♘xh6 45 ♗xe8 ♘g8

Analysing this position at home during the adjournment I looked hard for ways to enter with my king, and went no less than 50 moves deep from here.

It may seem hard to believe, but without any false boasting this is true. Once he has examined the variations, the reader will realise this was possible because of the exceptionally forced nature of the position and the presence of a completely bare trunk of a tree of analysis.

After the resumption, the game went according to my analysis for a very long time without my opponent realising it.

46 d6 ♘f6 47 ♗c6 ♔d8

How is the white king to penetrate? If one tries to get in via the only breaches in the black position -the g4- and h5-squares – then the attempt can be easily countered. Black plays his knight to f6 and alternates with his king between c8 and d8.

The way to win is long but not too complicated. It consists of several stages.

First Stage: Force Black to advance his a-pawn from a7 to a6. This is achieved by playing the king to a4 intending to get in on b5 and then c6 or a6. Black will then have to advance the pawn.

Second Stage: Get rid of Black's a-pawn by exchanging it for the pawn at d6. However, care must be taken over this, as if at some stage Black can play …g4 then the game is a draw. To cut out this possibility the white king has to wend his way back to g3.

Third Stage: After the disappearance of the a-pawn, White transfers his bishop from a6 to h3 and then goes back with his king to a4. This leads to zugzwang and the white bishop finally gets to the right square – d5.

Fourth Stage: Once secured on d5 the bishop commands the whole scene of operations. The bishop can only get there via h5. That is why White, once having put his bishop on g4, manoeuvres with his king on the other side of the board so as to force the knight to quit f6 and let the bishop in at d5. All this was thoroughly analysed, but … what this 'but' involves the reader will see later.

48 ♔e2 ♔c8 49 ♔d2 ♔d8 50 ♔c2 ♔c8 51 ♔b3 ♔b8

Black could also alternate with his knight between g8 and f6.

52 ♔a4 a6

First aim achieved, now comes the second part – getting rid of the a-pawn. However, White must first drop back with his king to g3 so as not to allow …g4.

53 ♔b3! ♔c8 54 ♔c2 ♔b8 55 ♔d2 ♔c8 56 ♔e2 ♔b8 57 ♔f2 ♔c8 58 ♔g3

The king has arrived at his destination. During his trip all over the board it was bad for Black to play …g4 because the white king would enter into the enemy camp via h4.

58…♔b8 59 d7! ♔c7 60 ♗b7! ♔xd7

The only chance. 60…a5 would be a bad mistake because of 61 ♗c6 and the king returns to a4 from where the road is now open to a6 via b5.

61 ♗xa6 ♔c7

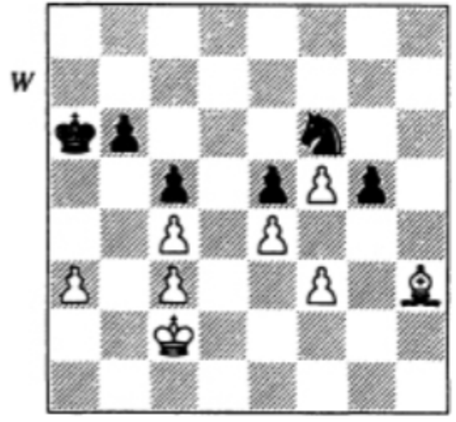
Second part completed. Now to get the bishop to d5. How, though? Black is carefully guarding h5 and no other transfer point can be seen.

62 ♗b5 ♔d6 63 ♗a4 ♔c7 64 ♗d1 ♔d6 65 ♔f2

Now that ...g4 has been stopped -the bishop stands on guard – the king sets off on his travels again.

65...♔c7 66 ♔e3 ♔c6 67 ♔d3 ♔b7 68 ♗e2 ♔a7 69 ♗f1 ♔b7 70 ♗h3 ♔a7 71 ♔c2 ♔a6 (*D*)

This imperceptible mistake loses quickly. The line I had planned in my analysis was 71...♔b7 72 ♔b3 ♘g8 73 ♔a4 ♔a6 74 ♗g4 ♘f6 (as yet Black is all right, but now White can cunningly gain an entry by winning a tempo) 75 ♗h3 ♘g8 76 ♗f1! ♘f6 77 ♗g2 ♘g8 78 ♗h3 ♘f6 79 ♗g4! and the knight must give way, letting in the bishop at h5 and thence to d5. The main variation, carefully worked out and written down in my exercise book was 79...♘g8 80 ♗h5 ♘f6 81 ♗f7 g4 82 fxg4 ♘xg4 83 ♗e6! ♘f6 84 ♗c8+ ♔a7 85 ♔b5 ♘xe4 86 ♔c6 ♘f6 87 ♗e6! e4 88 ♗d5 ♘xd5 89 cxd5 e3 90 f6 e2 91 f7 e1♕ 92 f8♕ and wins.



It is easy to understand my pride – it is not very often that you find a beautiful win that is accompanied by analysing very deeply – in this case 50 moves deep! Alas, my pride was premature. Several hours before resuming play I noticed that by continuing in this variation 77...g4 instead of 77...♘g8 Black would seem to draw.

After the 71st move Black actually played in the game, it all went much more simply: 72 ♔b3 ♔a5 73 ♗g4! ♔a6 74 ♔a4 ♔a7 75 ♔b5 ♔b7 76 a4! ♘e8 (merely with the threat of

mate by 77...♘d6) 77 a5 ♘d6+ 78 ♔a4 ♘e8 79 ♗h3!. The final finesse. The game was here adjourned once again and Black resigned without resuming. After the best line for both sides, 79...♔a6! 80 f6! ♘xf6 81 ♗c8+ ♔a7 82 ♔b5 bxa5 83 ♔xc5 a4 84 ♔b4 ♔b8 85 ♗f5 ♔c7 86 ♔xa4, White's two extra pawns give him an easy win.

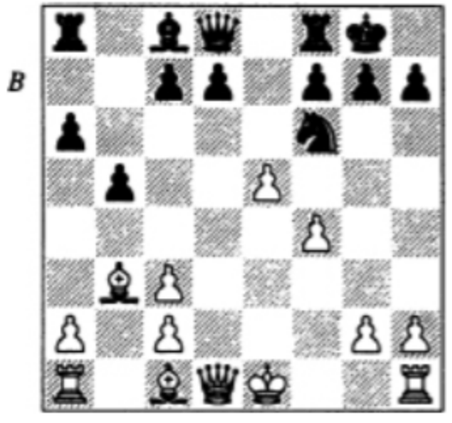
Try now to draw the tree of this forced manoeuvre. You will get something like a palm tree, quite bare with a very long straight stem. This will show why the analysis was easy to do.

We will finish this chapter with an example of an unusual type of tree. If we called the previous one a bare trunk, then now we have to deal with a low-growing but very tangled thicket.

You will guess that we are talking about analysing a mass of possible replies, involving the examination of almost a dozen candidate moves. However the variations are short, many of them being simply one move deep, and quite clear.

A 'Coppice'

Having examined several examples of one-variation analysis, let us now look at the exact opposite. It is often the case in tournament play that you get positions in which the choice of the correct move is made by analysing a large number of short and simple variations. A fine illustration of this is provided by the game Alekhine-Réti, Vienna 1922, in which after the opening moves 1 e4 e5 2 ♘f3 ♘c6 3 ♗b5 a6 4 ♗a4 ♘f6 5 ♘c3 b5 6 ♗b3 ♗c5 7 ♘xe5 ♘xe5 8 d4 ♗d6 9 dxe5 ♗xe5 10 f4 ♗xc3+ 11 bxc3 0-0 12 e5 we get the following position:



Réti employed a very interesting stratagem based on multi-variation complications. He played 12...c5!. Before making the move, he had to examine in detail the many possible replies:

1) 13 exf6 ♖e8+ 14 ♔f1 c4 with a good game.

2) 13 c4 d5! 14 exf6 ♖e8+ 15 ♔f1 ♕xf6 and after White guards his rook, 16...dxc4 with an excellent game for Black.

3) 13 0-0 c4 14 exf6 ♕xf6 15 ♕d5 ♕b6+ and then 16... ♗b7 with a comfortable position.

4) 13 ♗d5 ♘xd5 14 ♕xd5 ♕b6 15 ♗e3 ♗b7 16 ♕xc5 ♕g6! or 16 ♗xc5 ♗xd5 17 ♗xb6 ♗xg2 18 ♖g1 ♗e4 and Black has no difficulties.

5) 13 ♗a3! is the move that Alekhine actually made. There followed 13...♕a5! 14 0-0! ♕xa3 15 exf6 c4 16 ♕d5 ♕a5 17 fxg7 ♕b6+ 18 ♔h1 ♔xg7 19 ♗xc4 and the bishop has escaped to freedom as 19...bxc4 would be met by 20 ♕xa8 ♗b7 21 ♖ab1!. Let us draw a diagram of the analysis. We get a low multiple trunk tree reminding one of a coppice or shrubbery. We use the word coppice and hope this figurative expression will be of use to the reader in doing his own analysis.

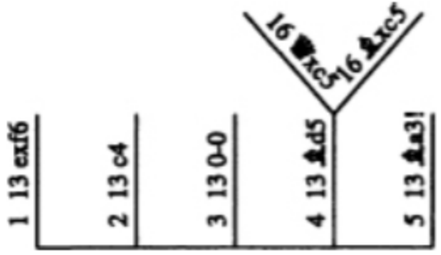
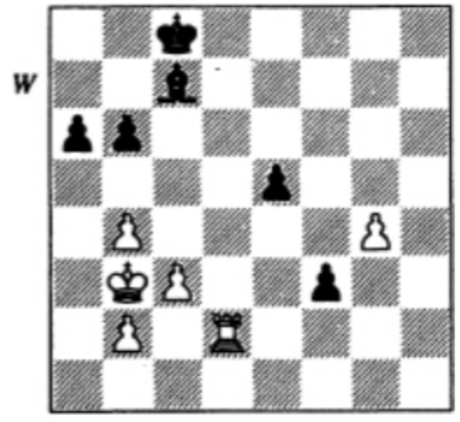


Fig. 4

Similar examples of a large number of not too complex variations can be found in grandmaster praxis. Here are two more, again taken from Alekhine's games.



This ending is Alekhine-Tartakover, again from the Vienna 1922 tournament. White is the exchange up, but how can he make this tell? Black's central passed pawns supported by the bishop are very dangerous and are not easily stopped. Before finding the right line, White had to examine a mass of short but clear-cut variations:

1) 36 ♔c4 e4 37 ♔d4 ♗f4 38 ♖f2 e3 39 ♖xf3 e2 and Black wins.

2) 36 ♔c2 e4 37 ♖d4! e3 38 ♔d1 ♗g3 39 ♖e4 e2+ 40 ♔d2 ♗h4 41 ♖e5 ♗g3 with a draw.

3) 36 g5 e4 37 ♖d5 (or 37 g6 ♗e5 with the threat ...e3 and Black must win) 37...f2 38 ♖f5 e3 39 g6 e2 40 g7 f1♕ 41 g8♕+ ♔b7 42 ♕d5+ ♔a7 and there is no win because of the threats 43...e1♕ and 43...♕d1+.

4) 36 ♖h2 e4 37 ♖h8+ ♔d7 38 ♖f8 ♗g3 39 g5 ♗d6! 40 ♖f6 ♗e5! 41 ♖f7+ ♔e6 and Black keeps attacking the rook, which must not leave the f-file. Hence a draw.

5) 36 ♖d5!!. Here is the tricky way to win that Alekhine found. There came 36...e4 37 ♖f5 ♗g3 38 g5 ♔d7 39 g6 ♔e6 40 g7 ♔xf5 41 g8♕ and Black soon resigned.

If he wishes, the reader may draw up the five 'low bushes' that depict the whole analysis of the position.

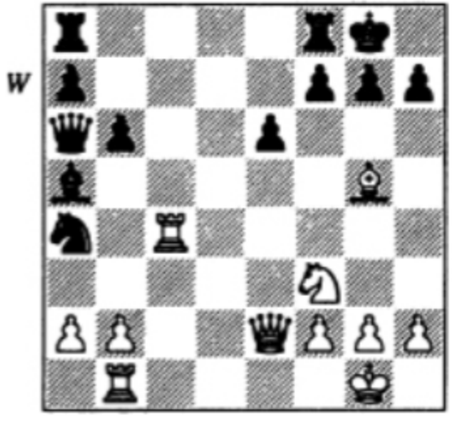
The previous example was an ending. Here is a middlegame from the game Alekhine-Sterk, Budapest 1921 *(D)*.

After 23 ♗f6 ♖fc8, White now clinched it by 24 ♕e5!, having first examined:

1) 24...♕xc4 25 ♕g5 ♔f8 26 ♕xg7+ ♔e8 27 ♕g8+ ♔d7 28 ♘e5+ ♔c7 29 ♕xf7+ and 30 ♘xc4.

2) 24...♖xc4 25 ♕g5 ♖g4 26 ♕xg4 g6 27 ♕xa4.

3) 24...gxf6 25 ♖g4+ and mates.

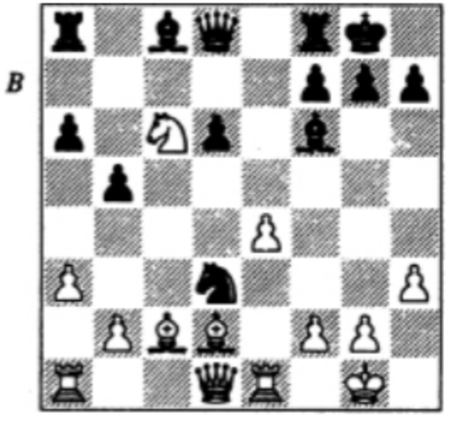


4) 24...♖c5, the move played in the game, 25 ♕g3! g6 26 ♖xa4 and White won easily with his extra piece.

'Thickets of Variations'

The analysis of variations in the examples we have quoted so far is not difficult and a well-trained player finds it comparatively easy to work through a long but 'straight' variation or a series of short ones.

Naturally, the greatest difficulties arise when a player has to contend with a position that is complicated and in which there are a lot of variations which at every single move diverge into quite different lines of play. If one were to depict the tree in this case then you would get a whole forest of variations, a real set of 'impenetrable thickets' or 'jungle undergrowth'. It is in just such positions that there is the greatest need for accuracy and discipline in one's thoughts, and that the analytical mastery of a player really shows itself.



This position arose in Tal-Keres, Candidates' Tournament, Curaçao 1962. White had just attacked the queen by playing 19 ♘d4-c6. If Black were to reply 19...♕b6 then 20 ♗xd3 ♕xc6 21 ♖c1 would leave White with a clear positional advantage. After long thought Keres replied 19...♘xf2. The

basis for this move was the analysis of the numerous variations which now follow:

1) 20 ♔xf2 ♕b6+ with an excellent game.

2) 20 ♘xd8 ♘xd1 and once again Black stands better.

Naturally, there was nothing hard to see here, but the next two variations 20 ♕h5 and 20 ♕f3 demanded much more time and attention.

3) 20 ♕h5. A very nasty move with the terrible threat of 21 e5 attacking the bishop and threatening mate on h7. Black has many replies, which the Estonian grandmaster had to examine. Let us analyse them in turn.

3a) 20...g6 21 ♕f3 and Black cannot save both the pieces which are *en prise*.

3b) 20...♕b6. In answer to this, Tal had prepared the fine counter 21 e5! ♘e4+ (21...♘d3+ is bad because of 22 ♗e3 ♕xc6 23 exf6 ♕xc2 24 ♕g5 with forced mate) 22 ♔h2 g6 23 exf6 (a fine queen sacrifice which is superior to 23 ♕e2 ♕xc6 24 ♗xe4 ♗xe5+ 25 ♔h1 d5 when Black stands well) 23...gxh5 24 ♗xe4 with a very strong attack for the sacrificed material.

Note, however, that Tal's fine concept could be refuted by prosaic means which were apparently discovered after the game. Black is not forced to accept the queen sacrifice and by 22...♗xe5+ (instead of 22...g6) 23 ♘xe5 ♘f6! gets a fine game, as White gets nowhere by either 24 ♕h4 dxe5 25 ♗c3 (or 25 ♗g5 h6) 25...♖e8.

3c) 20...♘xh3+! All the finesses involved in this move were found in analysis after the game, but naturally Keres had to foresee the move. Now there is a new division in the tree:

3c1) 21 gxh3 ♕b6+

3c2) 21 ♕xh3 ♕b6+

3c3) 21 ♔h2. The best move.

Black can try to refute the king move in various ways, namely:

3c3a) 21...♗e5+ 22 ♕xe5! dxe5 23 ♘xd8 ♖xd8 24 ♗a5 with advantage to White.

3c3b) 21...g6!. This reply leaves White a wide choice of moves, each of which Keres had to consider. Here they are, unnumbered for the sake of simplicity:

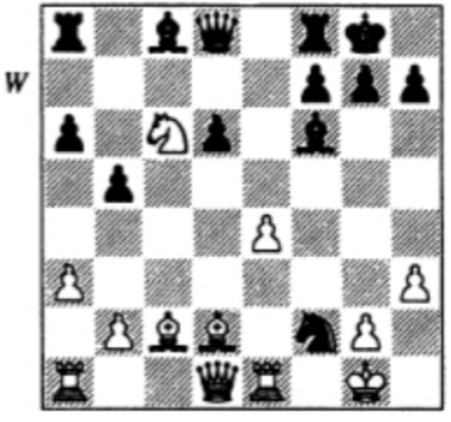
22 ♕xh3 ♗e5+ and then 23...♕c7.

22 ♕d5 ♕d7! and then 23...♗b7.

22 ♘xd8 gxh5 and Black has a fine game.

22 ♕f3 ♗e5+! 23 ♘xe5 dxe5 24 ♗h6 ♕h4!.

Hence moving the queen to h5 gives rise to complicated play, but in all variations Black has an excellent game. That is why, in the end, Tal, having looked at these complicated lines, preferred to play ♕f3.



4) 20 ♕f3. Now the game may diverge into:

4a) 20...♕b6 21 e5! ♘g4+ and then:

4a1) 22 ♔h1 ♘xe5 23 ♘xe5 ♗xe5 24 ♖xe5 dxe5 25 ♕xa8 ♗b7 26 ♗xh7+ ♔xh7 27 ♕xf8 ♕f2! 28 ♖g1 ♕g3 and Black wins.

4a2) 22 ♗e3! ♘xe3 23 exf6! ♘xc2+ 24 ♔h2 ♘xe1 25 ♖xe1 and despite being a rook down White has a dangerous attack.

4b) 20...♘xh3+!. This is what Keres actually played. Once again we have a forest of variations:

4b1) 21 gxh3 ♕b6+.

4b2) 21 ♕xh3 ♕b6+.

4b3) 21 ♔h1 ♕b6 22 e5 ♗g4! and White is in trouble.

4b4) 21 ♔f1. This was Tal's intention, but he now analysed again to find that it was unfavourable for him, e.g. 21...♕b6 22 e5 ♗g4! 23 ♗e3 (23 ♕e3 ♕xc6 24 ♖ac1 ♕c4+ and Black wins) 23...♖xf3 24 ♖xb6 ♖xc6.

4b5) 21 ♔h2. This is what Tal finally chose. There now followed 21...♖e5+! 22 ♘xe5 (22 ♔h1 ♕c7 with advantage) 22...dxe5 23 ♖ed1 ♘f4 and now equally bad for White are 24 ♖xf4 ♕h4+ and 24 g3 ♘e6. The latter line was the one chosen in the game and Black soon won.

Now try to draw up the tree of analysis. What a dense forest you get – what a real jungle, yet all this took place over the short space of three or four moves!

Selection of Candidate Moves

In the Central Club for railway employees in Moscow there is a comfortable box with a good view of the stage. One day, during a round of the current Soviet Championship, a group of grandmasters who had already finished their games gathered there. The games in progress on the stage were all boring, with just one exception, and there was little to do.

Someone suggested that we run a book and try to guess which moves Kopylov would play. No sooner said than done, and each grandmaster suggested his move and made a small

contribution to the bank. The one to suggest the move actually played took the kitty, while if nobody was right then it was left over till the next move. It was no easy matter to get it right, and for some time the kitty was left untouched. Finally fortune smiled upon someone, Bronstein I think.

Well then, there's a nice state of affairs, the reader must be thinking. Even in such a logical game as chess, top-flight experts were unable to say what the next move of a master playing in the Soviet Championship would be. However, I can confirm that this is what happened. True, such cases of mass misunderstanding are rare. More often than not one can forecast the moves of one's colleagues even though grandmasters do not all think in the same way. That is why we love chess! We like the game for its boundless possibilities, for its bold flights of fancy, for the wide scope it offers for the seeking and inventive mind. That is why we call chess an art.

How, then, does a chess player choose which move to play in a given position? There is no easy answer; each player goes about choosing in his own way. The late Leningrad master Vitaly Chekhover used to say in all seriousness that when it was his turn to move he began his analysis by working out which piece he could put *en prise*! If he couldn't see a way of losing his queen or his rook he would go on from there and only when he could see no advantageous way of giving up material did he start examining quiet moves.

We have been describing exceptional circumstances, possibly even cases of chess eccentricity, but it must still be clear to everybody that Petrosian thinks differently from Tal when working out what is the best move. Petrosian first of all checks that his pieces mutually guard each other and then goes on to see if he has a chance to sacrifice something.

Tal always looks at sacrificial moves first, possibly without having regard to the risks involved. I repeat, it is the scope for creative thought and the expression of one's individuality that gives one the right to talk about chess as an art.

The search for the best move is a creative process, and demands more than a knowledge of strategy and tactics, more than experience and a knowledge of the standard methods. It is in this process that a player shows his best qualities: breadth of thought, boldness and creative ability.

Emanuel Lasker once said of a promising player: 'For all his undoubted strategic and tactical abilities, he lacks the special sort of imagination needed to foresee the contours of the complicated operations that are germinating within the position.' From this it follows that a good player has some special quality which enables him to get a bird's-eye view of what is building up in a position.

I am sure Lasker did not mean only inherited talent, native gifts; after all, he was the one who undertook by means of systematic instruction to bring an ordinary person to the playing strength of a first category player. The knack he speaks of is a product of both inherent ability and training. Lasker had in mind the ability to analyse accurately, and to seek out in the given situation the most necessary and the most 'interesting' moves. In other words, a player has to be able to find the candidate moves (I have already mentioned in the section 'Historical Digression' that systematic training is needed to develop this ability).

In passing, note that this does not just mean finding the candidate moves in the present position, but at every move in all variations, and not just for yourself, but for your opponent as well. Naturally the task becomes more difficult as you progress move-by-move along a variation.

It is time to examine some factors involved in this search for the best moves.

What is a Candidate Move?

So far we have examined the correct procedure for analysing variations, noted certain special features and given rules for working out the best moves. Now we must deal with how to decide which moves are candidates, and how many of them there are in each position.

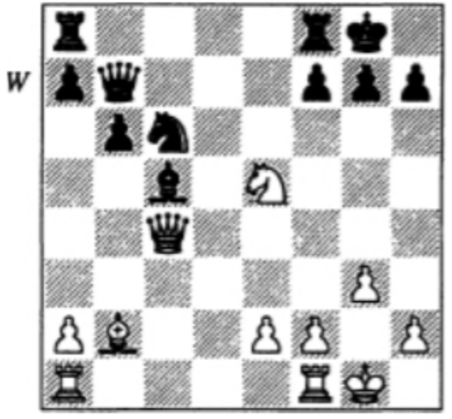
Let us once again imagine ourselves in the shoes of a grandmaster who is thinking about the best move. Naturally, he begins his analysis by deciding on the candidate moves, examines them in due sequence, moving along first one branch of the tree and then the next and so on.

This is hard work and the level of its accuracy is decided by the abilities and state of training of the grandmaster – on his sporting form. We have already stated that the ability to think in a disciplined way in the proper sequence is the first main characteristic of a strong player. The second and no less important one is the ability to find the right number of candidate moves.

How many candidates does one have to examine? To answer this is far from easy. Some of the chess-playing computers built in recent years work on the principle of examining all possible moves. However, this is beyond the powers of even the best computers, and that is why they don't play very well (*Editor's note:* Most current programs use techniques which 'prune' the analytical tree; typically, 'promising' moves, which may be roughly equated with Kotov's 'candidate' moves, are analysed far more deeply than 'unpromising' moves. Perhaps this is why they now play very

well!). For a human being it is even more difficult to examine all lines.

How many candidate moves does a grandmaster examine? As must be clear, there is no standard answer to this question; in each position he examines as many as seem necessary in the given circumstances. We have already seen examples of how the number and type of variations can vary. There are unusual cases where there can be five or six, while in the next there are actually seven.



This position arose in the game Tartakower-Alekhine, Baden-Baden 1925. In annotating the game Tartakower gives the following possibilities which he examined to some extent in deciding on his next move.

1) 17 ♕g4 ♘xe5 18 ♖xe5 is met by 18...f6 or 18...f5 with equality.

2) 17 ♘g4 (threatening 18 ♘f6+ ♔h8 19 ♕h4) 17...h5 18 ♘e5 ♘xe5 19 ♗xe5 and White has nothing.

3) 17 ♘d3 ♗d6 18 ♕g4 f5 19 ♕f3 ♘a5 20 ♕xb7 ♘xb7 with an equal position.

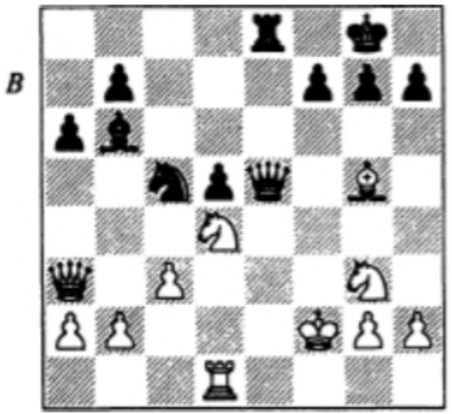
4) 17 ♖ad1 (17 ♖fd1 is similar) 17...♘xe5 18 ♗xe5 ♖ad8 with exchanges and simplification.

5) 17 ♕d5 ♘a5 (not 17...♖ac8 18 ♘d1 ♖cd8 19 ♕g5) 18 ♕xb7 ♘xb7 19 ♖fd1 ♖fd8 with equality.

6) 17 ♕e4 ♘d8 18 ♕g4 ♘e6 19 ♖ad1 ♖ad8 and Black defends successfully.

7) 17 ♘xc6 (actually played in the game) 17...♕xc6 18 ♕g4 ♕g6! and the game ended in a draw.

A grandmaster is obliged to examine all the candidate moves in a given position. Just miss one out and it may well be that that is the one that you really needed – the move that wins the game or salvages a draw.



This position arose in the Gagra training tournament game between Ragozin and Boleslavsky in 1953. Black has sacrificed a piece for just one pawn, but has terrible threats. The sacrifice was well based on the special factors in the position. White's queen is out of play and does not seem able to get over to the defence of her king. At the same time the king has been driven from his fortress and has to face unpleasant threats.

Ragozin must have spent a lot of time trying to find a saving move in this difficult position. There are various attempts but analysis shows all of them to be unsatisfactory.

1) 24 ♗d2 ♘d3+ 25 ♔f1 ♖xd4 26 cxd4 ♕f6+ 27 ♔g1 and now Black wins by either 27...♕f2+ 28 ♔h1 ♘e1 or the standard smothered mate 27...♕xd4+ etc.

2) 24 ♕b4 ♕xg5 25 ♕xb6 ♕e3+ 26 ♔f1 ♘d3 and there is no defence to the mate threats on f2 and e1.

3) 24 ♘f3 ♘e4+ 25 ♔e1! (or 25 ♔f1 ♕xg3!! wins) 25... ♕e6 26 ♘xe4 h6!!. Now we have an interesting position in which White no longer has a defence. If 27 ♗xh6, then 27... ♕xh6 28 ♖xd5 ♕c1+ 29 ♔e2 ♖xe4+ 30 ♔d3 ♕b1+ 31 ♔d2 ♗e3+ 32 ♔e2 ♗f4+. No better is 27 ♕a4 ♕xe4+ 28 ♕xe4 dxe4 29 ♘d4 hxg5 with an easy win in the ending.

4) 24 h4 h6 25 ♗c1 ♕f6+ 26 ♔g1 ♕xh4. Black has won a second pawn for the piece and White is still in grave difficulties, e.g.:

4a) 27 ♘gf5 ♖e1+ 28 ♖xe1 ♕xe1+ 29 ♔h2 ♕xc1 *finis*.

4b) 27 ♘df5 ♘d3+ 28 ♔f1 ♕h2 29 ♗e3 ♗xe3 30 ♘xe3 ♖xe3.

4c) 27 ♘ge2 ♖xe2 28 ♘xe2 ♘d3+ 29 ♘d4 ♕f2+ 30 ♔h1 ♘e1 31 ♖d2 (31 ♖xe1 ♕xe1+ 32 ♔h2 ♗c7+) 31... ♕f1+ 32 ♔h2 ♗c7+ 33 g3 (or 33 ♔h3 ♕h1+ 34 ♔g4 g6 forcing mate on h5) 33... ♗e5 34 ♖e2 ♗xd4 35 ♖xe1 ♗g1+ 36 ♔h1 ♕xe1.

4d) 27 ♘f1 ♕g4 28 ♖d2 (28 b4 ♕xd1 29 bxc5 ♖e1) 28... ♖e1 29 b4 ♘e4 30 ♖d3 ♕e2 31 ♖f3 ♘g3 wins.

A discouraging business! Ragozin must have examined the five candidate moves (the fifth is 24 ♗c1 as he actually played) and come to the conclusion that his position was lost. Reconciled to the inevitable, he now started looking for a way to put up the best resistance he could, by putting maximum difficulties in the way of his opponent. He thought 24 ♗c1 was the best way of doing this. However, Boleslavsky's inventive play enabled him to break down this defence, as the reader will shortly see. White's decision at this point was the error that cost him the game. In analysing,

Ragozin took it that there were five candidates, forgetting, alas, that there were in fact six! The sixth would have saved the game and if he had thought another five or ten minutes about the position he would have probably found it – after all, he was a very inventive player. Moreover, the logic of the position demanded that this move should be played.

What is the main drawback that White has to contend with? Most of all he is suffering from the isolation of his queen from the main battlefield on the kingside. Another factor is the potential energy stored up in the black piece battery of knight on c5 and bishop on b6. Therefore it was best for White to clarify straight away what this battery can achieve, rather than wait passively.

The far from obvious 24 b4 ! is the sixth candidate and would have saved the game. Black would then have no choice but to call it a draw. If 24...♘e6, 25 ♗e3 f5 26 ♘dxf5 ♕f4+ 27 ♔e2, or 24...♘e4+ 25 ♘xe4 ♕xe4 26 ♕c1 ! and the queen gets back into the game in the nick of time. Black would even risk losing. Boleslavsky would have to look at the position for a long time and finally concede that he had nothing better than to draw by 24...♕xg5 25 bxc5 ♕e3+ 26 ♔f1 ♕f4+ 27 ♔g1 ♕e3+ with perpetual check.

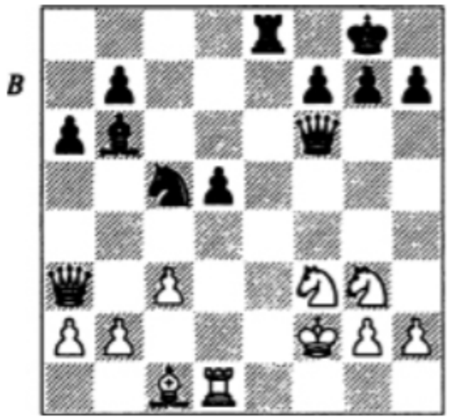
In the actual game there came 24 ♗c1? ♕f6+ 25 ♔g1. Here again White fails to find the strongest move, choosing the wrong candidate! After the stronger 25 ♘f3! (*D*) the win can be forced only by finding exactly the right move each time, and can one always be certain to do that at the board?

The winning move is 25...♕g6! wiht the two threats of 26...♘e4+ 27 ♔f1 ♕xg3! and a queen check on c2. How would White defend then? He has two moves, both inadequate, and we recommend the reader to work this out

for himself before looking at what Boleslavsky analysed at the board.

Here are the possibilities:

1) 26 ♔g1 ♕c2 27 ♖f1 ♘d3+ 28 ♔h1 (28 ♘d4 ♘e1) 28...♘f2+ 29 ♔g1 ♘d1+ 30 ♔h1 (once again 30 ♘d4 is bad because of 30...♖e1 31 h3 ♖xf1+ 32 ♘xf1 ♕f2+ 33 ♔h2 ♗c7+) 30...♕xc1 31 ♘d4 ♖e1! 32 ♕d6 h5 33 ♕xb6 ♘e3 and Black is winning.



2) 26 ♘d4 ♕g4 and again White has no defence, for example 27 ♖d2 ♕f4+, 27 b4 ♘e4+ 28 ♘xe4 ♖xe4 29 ♖d2 ♕f4+, 27 ♘de2 ♘e4+ 28 ♔e1 ♘xg3, 27 ♖f1 ♘d3+ 28 ♔g1 ♗xd4+ 29 cxd4 ♕xd4+ 30 ♔h1 ♘f2+, or finally 27 ♘ge2 ♘d3+ 28 ♔f1 ♗xd4.

Thus Black wins in all variations, but he would have to find the far from obvious moves 25...♕g6! and 26...♕g4. Ragozin chose the wrong candidate, once again restricting his choice too much. This example enables us to state the rule that it is bad to examine an excessively large number of variations, but it is even worse not to examine all the necessary moves.

It only remains to add that Boleslavsky convincingly refuted the erroneous king move by playing (25 ♔g1) 25...♘d3! 26 h3 (26 ♘h1 ♖e2! 27 ♕a4 ♕e5 28 ♘g3 ♖e1+ 29 ♘f1

♕e2 30 ♖xe1 ♕f2+ 31 ♔h1 ♕xe1 is winning) 26...♖e1+ 27 ♔h2 ♖xd1 28 ♕a4 ♖e1 29 ♗d2 ♘c5 30 ♕b4 ♖e8 0-1.

Thus even such a player as Ragozin, who was able to devise the most amazing and ingenious moves, was unable on this occasion to include all the candidate moves in his analysis. As a result he lost a drawn position.

So it is bad to examine only a small number of moves; it is also bad to examine a very large number, for the obvious reason that if you think of too many you will get tired and forget the best possibility. Naturally, at certain times during the game you can afford to allow yourself some superfluous thinking, but if you do this regularly then your coefficient of useful work will fall significantly.

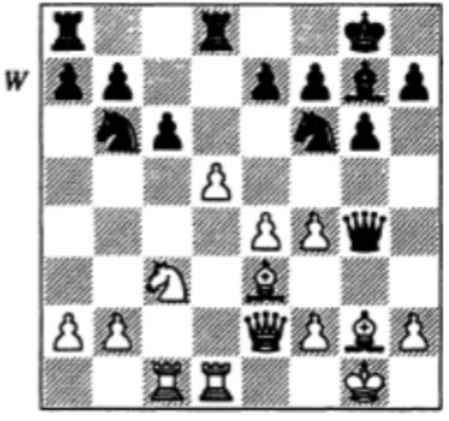
One thing does render the work easier. Once the grandmaster has decided on and examined the candidates in the initial position then next move he does not start from scratch, but has a reserve of moves left over from his previous analysis.

Here there arises another fault in players' thinking. Once they have finished an analysis they take it that the analysis is perfect, and right down to the last move of a line they consider it unnecessary to check through it again. They analyse in portions, setting themselves the task of analysing deeply only every five or six moves. The experience and research of leading players shows this piecemeal method to be clearly wrong.

Let us try to find a concrete example of this. Unfortunately our top players rarely share their experiences in this respect and don't write much about how their thinking processes work. So we have to eke out what sparse information we can derive from the notes which do mention this point.

Let us imagine then that a grandmaster at one stage in the game has spent half an hour analysing 'right to the end' all possible lines. He makes his move, his opponent replies with the move expected and considered best. What now? Should the grandmaster rely on his previous analysis and quickly make the reply he originally intended or should he spend a few minutes repeating the analysis done a move earlier? Let us ask the experts.

This position arose in the game Botvinnik-Smyslov, Groningen 1946, after Black's 17th move. Describing this crucial point in the game Botvinnik wrote: 'Here I came to the conclusion that the following variation which I had analysed led to a won ending a pawn up, and without bothering to check it further (after each black reply) – an unforgivable piece of carelessness – I quickly made the moves that I had worked out.' From the diagram, the game continued:



18 ♕xg4 ♘xg4 19 ♗xb6 axb6 20 dxc6

Here Botvinnik comments: 'As the reader will see from the next note this move lets slip a significant part of White's advantage. Correct was the immediate 20 e5 and if 20...c5 then 21 a4 followed by 22 b3 and 23 ♘b5 when White is in effect a pawn up with the better game.'

20...bxc6 21 e5

'I had carefully analysed this position and when I made my 18th move it looked as if it was very advantageous to White as:

1) the black bishop is passive (21...♗h6 22 h3!),

2) Black has to spend a couple of tempi to bring his knight back into the game, and

3) the c-pawn is indefensible as 21...♖ac8 is met by 22 ♗h3 (22...h5 23 f3).

So Black loses the c-pawn without being able to improve the position of his pieces.

'At this point, however, as I was waiting for my opponent to reply, I noticed to my distress that after 21...♖ac8 22 ♗h3 h5 23 f3 Black can play 23...♘e3! maintaining material equality. It follows that if White wants to win material he has to go in for an exchange of rooks, but after 21...♖ac8 22 ♖xd8+ ♖xd8 23 ♗c6 Black gets the d-file for counter-play. It would seem that after 21...♖ac8 White would have to transpose into a slightly better ending by 22 ♗h3 h5 23 f3 ♘e3 24 ♗xc8 ♘xd1 25 ♖xd1 ♖xc8 26 ♖d7.

'However, Smyslov was so demoralised by the speed with which I had made my moves in making all these exchanges that he did not check through the variations and reconciled himself to the loss of a pawn' (Botvinnik).

In the game there came 21...♘h6 22 ♗xc6 ♖xd1+ 23 ♖xd1 ♖c8 24 ♘d5 ! and White soon won.

What does this curious episode teach us? First of all we learn from Botvinnik's notes that as a rule after each move he checks the variations which he had already worked out (though naturally not with such deep concentration, as he is now familiar with the greater part of the variations). We also

learn that Smyslov went wrong by putting too much faith in his opponent, arguing apparently to himself: 'If Botvinnik moves so quickly then he has seen everything and I have a bad position!'

Whether one should trust one's opponent in this way is something we shall discuss later. Now let us consider the advice of Blumenfeld who wrote in one of his articles: 'In a long variation every move that you make in your mind's eye creates a different position, and all the time as you move further on, the new position differs more and more from the actual one. Thus the new imagined position becomes fainter and fainter in the mind. Even though some players may have a strong imaginative faculty and can be confident that they have a clear picture of the position resulting at the end of a long variation, nevertheless there can be no doubt that the faintness we have described must have some influence on the correctness of the assessment of the final position. Every player has experienced at times the fact that having worked out a long variation correctly he cannot decide whether it is favourable to him or not, which as far as I can see is due to the lack of clarity with which he imagines the final position in his mind. A chess player's thoughts are linked with visual patterns. Hence the clearer the picture in the mind's eye, the greater the ease and accuracy with which the mind works and the richer the content of thought.' Then Blumenfeld adds the following useful advice:

'After your opponent has moved you should start thinking not on the basis of your previous conclusions, but as it were from scratch, and as a first step take in visually the present position. No matter how strong is your imaginative faculty, it is clear that the picture in your mind must be feebler than the one you get by looking at the board. So

when your opponent moves, even when he has made the move you expected, you should never (except in the case of severe time-trouble when you have no option) make the move you intended without further thought. For the move you prepared was on the basis of a position seen in your imagination. It is quite possible that when you now look at the position directly with all its characteristics, i.e. including your opponent's last move, you will have new ideas because of the greater clarity with which you now see the position.' The reflections of an outstanding practical player thus coincide with the conclusions of a research worker in the field of chess psychology. So let us agree that when our opponent moves, we should assess the position and analyse variations as if the position were one with which we were not familiar. The fact that you have seen the position in your mind's eye will help you in analysing, but do not let your previous analysis dominate what you are now working out.

If you observe this rule, the risk of overlooking something will be considerably reduced and you will learn to examine just the number of candidates that a given position demands. To develop this ability further, you should examine frequently games by grandmasters with their notes and try to discover from their comments and from their moves which possibilities they considered. On top of that try to get to know your own individual characteristics. Can you withstand a big strain; how quickly do you tire? Then in accordance with these traits, decide each time in a concrete fashion whether it is worthwhile to think a long time looking for hidden resources, or whether you should conserve your energy and limit yourself to a minimum of variation analysis.

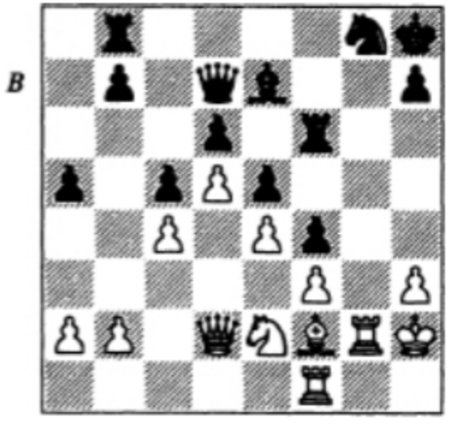
We used the words 'looking for' and the choice of words was intentional. A player's thoughts are perpetually engaged in just such a search. Don't make the mistake of thinking that unexpected combinations and tactical blows are lying on the surface. No, the search for the cunning (and at the same time beautiful) in chess is hard work – work that reminds one of the efforts of artists in any other field such as music, sculpture, painting and literature. You have to work hard at developing your powers. We have already indicated some training methods. Now I want to advise the reader to solve studies, preferably blindfold without the use of board and men. You should try to find combinations in the 'Spot the next move' quizzes published in chess magazines. No grandmaster will pass by such puzzle features, but will always make the effort to solve the problem. All this comes to him by force of habit, the habit of always tuning up his analytical powers.

I do not know whether I am using the correct word from the literary point of view, but I am sure the reader will understand me correctly when I say, Train your fantasy'. That is the right advice to give to students of the game, for inventiveness can be improved by experience and training. This is shown by the experience of many grandmasters. Botvinnik, in his early days when he had already had a lot of success, still lacked the flight of fancy which he was to develop later, much to the benefit of the chess world.

I hope it will not be thought immodest of me to mention that for a long time before 1939 I was criticised for the dryness of my play, whereas after 1939 the criticism was often for just the opposite reason!

Look for the exceptions, look for the most unusual moves in the most varied of positions. Of course there are positions in which, no matter how hard you look, you won't find an unusual move, because the position is so simple and dry. But once there is the slightest suggestion of combinational possibilities on the board, look for unusual moves. Apart from making your play creative and interesting, it will help you to get better results.

Let us now take some concrete examples. Unusual moves which cause great surprise and make people shake their heads in amazement can occur in situations when you are attacking and when you are defending. In the first case they help to shatter the opponent; in defence they help to save a bad position. I quote some examples from my games to illustrate this.

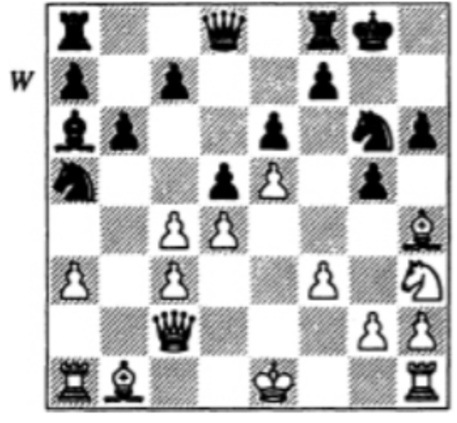


In this position (Averbakh-Kotov, Zurich Candidates 1953), Black is attacking but he would not have got very far had it not been for the new energy he imparted to the attack by the shattering move 30...♕xh3+!!. The white king is made to move into the enemy camp and finally perished there.

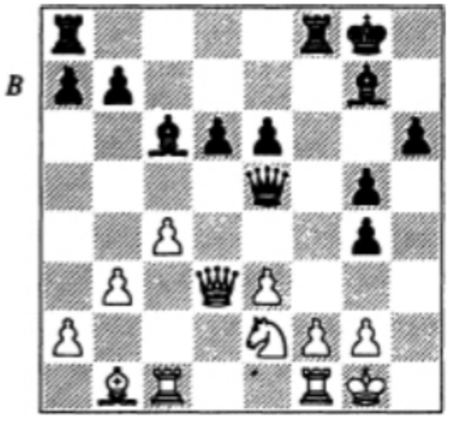
No less energetic was the impetus imparted to White's attack in the following position from Kotov-Keres, Budapest Candidates 1950 (*D*).

White is attacking, but he would probably not have broken through had it not been for the explosive move 16 ♘f4!! after which Black's game fell apart like a house of cards.

No less effective are moves of fantasy when employed for defensive purposes.



During the game Ravinsky-Kotov, Trade Union Championship 1949 the following position was reached.



White has unpleasant threats. His queen can get to h7 whenever it wants and so drive the enemy king out towards the centre. From the times of Anderssen and Morphy it has been well known that a king so exposed in the middle has a far from easy life. Yet now comes 23…♔f7!; the black king voluntarily sets off towards the centre, having spotted that the safest square for himself in this particular position is e7. So off to e7 moves the nimble fellow. This paradoxical move is a successful 'find' and enables Black to win quickly. After

24 ♘g3 ♔e7 25 ♕e2 (25 ♘h5 was better) 25...h5! Black went over to the attack and won after the further moves 26 ♘xh5 ♖h8 27 ♕xg4 ♖xh5 28 ♕xh5 ♖h8 29 ♗h7 ♗e4 30 f4 ♕b2 31 ♕xg5+ ♗f6 32 ♕xf6+ ♔xf6 33 ♗xe4 ♕xa2 etc.

So look for unusual moves at every stage of the game, whether you are attacking or defending.

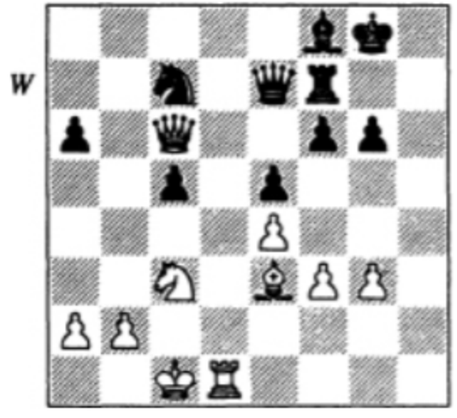
'Creeping Moves'

Over the many years of my chess career I have had occasion to see – and have played myself – moves of the most varied content, strength and effectiveness. Sometimes a bastion that has been long and painstakingly built up to seem impregnable can be shattered in an instant by a spectacular move. Sometimes an insignificant pawn move refutes a deep scheme of the opponent.

I can boldly claim to have seen every sort of move that the wit of man can think up, but there is one type of move that has always won my admiration and respect. It happens that a position looks quite level, and one cannot see any way of gaining an advantage for either side when suddenly there comes a simple, insignificant-looking move. In a trice one's assessment is changed as the opponent's position is now seen to be indefensible. Yet this quiet move does not destroy any defensive bastions, does not lead to a forced combination; it only changes the piece formation slightly. After such a creeping move the opponent sometimes has to resign straight away.

Let us start with a recent example. The final match of the 1968 Candidates' Tournament was played at Kiev between Spassky and Korchnoi. A group of Moscow players, including myself, received the moves over the telephone as they were played. Our correspondent phoned us the first 25 moves of

the seventh game and we started to analyse the following position:



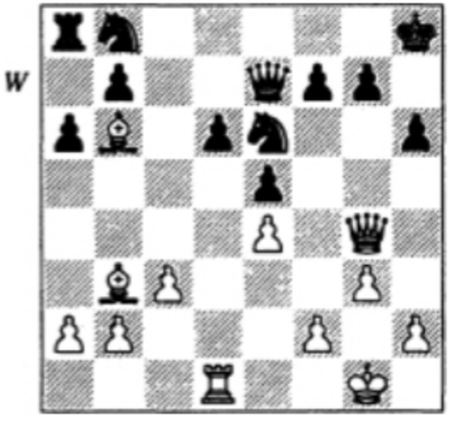
White's advantage is undeniable; Black's pawns are weak and the c-pawn practically indefensible. The d5-square, where a white knight will soon establish itself, can serve subsequently as a transfer point for the advance of other white attacking pieces. Even so our group could not find a concrete win for White. How can White continue so as to ensure the win? If 26 ♘d5 then 26...♕e6! and Black has managed to defend all his weaknesses. Nor are other lines too convincing.

Finally the telephone rang and we got Spassky's next move. It was a surprising one: elegant, far from obvious, modest – in other words a 'creeping move'. White just plays his queen one square sideways by 26 ♕b6!. But what a difference it makes – the position now comes alive for White. Black in fact is in zugzwang as the saving move in many variations, ...♕e6, no longer works now that the white queen is no longer on c6. 26...♕e6 would now be simply met by 27 ♗×c5. Korchnoi had to reply 26...♔g7 and after 27 ♘d5 ♕e6 28 ♗xc5 ♗xc5 29 ♕xc5 ♘b5 30 ♕e3 ♕c6+ 31 ♔b1 ♘d4 32 ♖c1 ♕b5 33 ♘c7 ♕e2 34 ♘e6+ ♔h7 there came the brilliant finish 35 ♕h6+ 1-0. I am still not sure, however, which queen move of Spassky's was the best – the sacrifice to force

mate or the insignificant ♕b6. The first move is far prettier but is not too hard to find. The second is the sort that many people just wouldn't think of at all.

A similar picture can be seen in the next two examples. In the first, the game looks fairly equal. However, a far from obvious queen move again decides the game.

This is from the game Smyslov-Reshevsky, World Championship Match Tournament 1948. White certainly stands better but how is he to realise his advantage? It is hard to get at the backward d-pawn as if 25 ♖d2 threatening 26 ♕d1 then the reply 25...♘d7 drives the white bishop away from its active post. However after 25 ♗xe6 fxe6 White played the strikingly creeping move 26 ♕h4!. Once again a queen is moved just one square sideways and once again Black's game immediately becomes hopeless. If queens are exchanged then the d-pawn is lost and, even more important, Black's pieces are boxed in on the queenside and he has no counterplay.

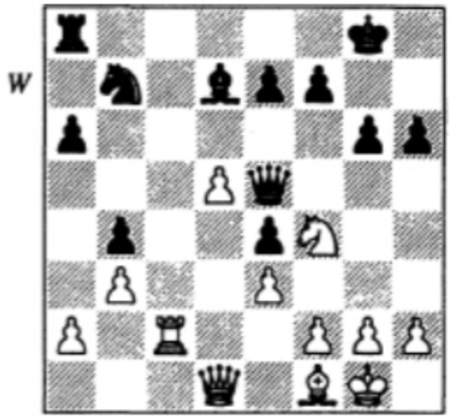


Reshevsky chose to keep queens on by 26...♕d7 but then 27 ♕d8+ ♕xd8 28 ♗xd8 ♘d7 29 ♗c7 ♘c5 30 ♖xd6 ♖c8 31 ♗b6 left White with an extra pawn which, combined with his positional advantage, led to a quick win.

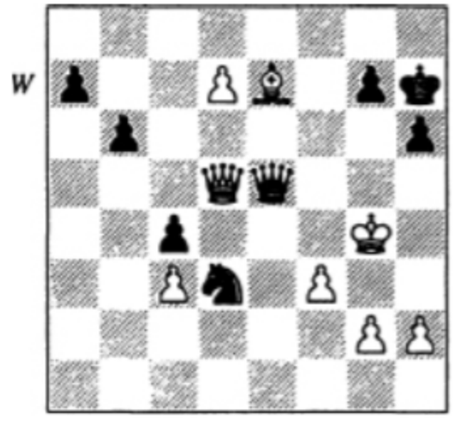
The Kotov-Levenfish game in the 17th Soviet Championship 1949 was tense for a long time. White had

a slight advantage but could not really make this tell, when suddenly the situation changed.

Black's queen occupies a commanding position and holds his game together. Hence the thought of exchanging queens arose here not only as a result of fantasy but also as a result of assessment of the position. 28 ♕d4! in effect decides the game. Retreating the queen is bad but exchanging also left Black with a hopeless game after 28...♕xd4 29 exd4 g5 30 ♖c7 ♗b5 31 ♖xb7 gxf4 32 ♖xe7 ♖c8 33 ♗xb5 axb5 34 h4!, and White won easily.



No less a player than Smyslov failed to notice a winning creeping move in his game against Petrosian in the Candidates' Tournament, Zurich 1953.



Here Petrosian had just played 46...♕e5!? thinking that thereby he would get a draw. The threat is mate in two by 47...♘f2+ 48 ♔h4 ♕xh2. Smyslov took this on trust and replied 47 ♕xd3+ cxd3 48 d8♕ with a draw. However the creeping move 47 ♕d6!! would have forced Black to resign. This move was found several months after the game by a Swedish amateur!

So learn to find 'insignificant' creeping moves!

Gross Blunders

A grandmaster tournament is a battle between finely trained minds which are capable of carrying out tense mental work for hours on end. A grandmaster, by dint of extensive practice and training, gets used to making the deepest analysis, enabling him to foresee the course of events many moves ahead.

Yet at the same time there is not a single grandmaster, not to mention master or player below that class, who has not made the grossest of blunders in his time. He overlooked an elementary mate in a couple of moves, gave away his queen or rook or what have you. How can this be? How can a trained mind suddenly have a blind spot, how can systematic analysis suddenly be replaced by chaos and confusion? Naturally, as in life itself, everything that happens by chance

has some explanation and there is some strange logic in the appearance of blunders. They happen by chance yet do have a reason for them. Our task is to find the reason in the psychology of the grandmaster's mind. Once we have found the real reason we can find ways to combat the occurrence of blunders in our own play.

What short circuit in the brain, what overloading, can cause a player to put his queen *en prise*, or overlook mate?

Despite extensive work in other fields of the psychology of chess there has been no real research in this particular field, so our short attempt to deal with this topic in a systematic way may well help the student of the game to reduce the incidence of such unpleasant occurrences in his own play.

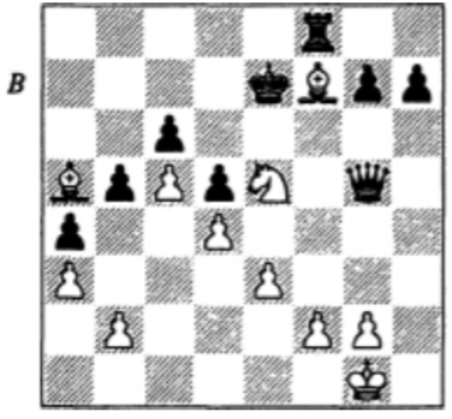
Dizziness due to Success

(*Translator's note:* 'Dizziness due to success' is a phrase that will be much more familiar to Soviet than to English-speaking readers. It is the title of a 1930 article by Stalin, admitting that, 'dizzy with success', some local activists were using coercion in the campaign to collectivise agriculture).

'When I give check I am afraid of nobody,' a Leningrad player once told me with pride. Admittedly there is nothing more concrete and definite than a check, unless it be mate (which in any event is also a check, the last one of the game). Hence chess players have a great respect for checks and always bear the possibility of such moves in mind when analysing.

Due to a number of psychological factors, an unexpected check is capable of swinging a game round, and so affecting the final result. We should study why a player suddenly becomes blind to the possibility of a check so as not to be so afflicted ourselves.

In my distant boyhood in Tula I reached this position in a tournament game (I cannot be sure of the exact position but the basic essentials were etched in my brain so that I never forgot them).

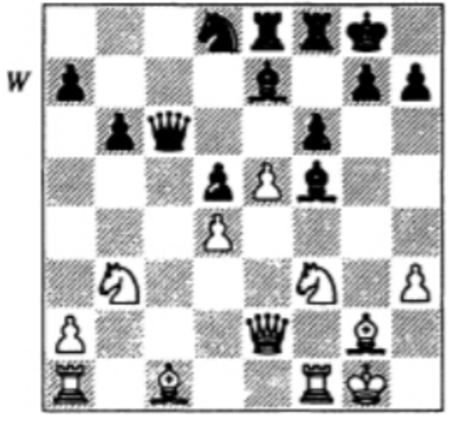


I was Black and had a completely won position. I was annoyed that my opponent – a certain Golubev – did not resign although he was a whole rook down. It was my turn to move and I realised that the joy of victory could not be long delayed. My opponent had already folded his score sheet in two, written 'Resigns' on it and put it in his pocket. With an air of hopelessness he was looking round and seemed to express with his whole demeanour that as soon as I made my move he would resign.

So I made my move – the most obvious one there was – taking his bishop with my rook. Immediately the other bishop whizzed through the air and landed with a bang on d8. Again with a bang my opponent started my clock and looked round in triumph at the people who were watching the game. Then he took out the score sheet, wrote down his move and mine and crossed out the word 'Resigns'. I was the one who had to resign!

There was no limit to my annoyance, but shortly after this I saw a copy of the magazine *Shakhmatny Listok* in which Ilyin-Zhenevsky eloquently described how he had missed

an unexpected check and so ruined the work of hours in building up an advantage in a serious game.



He wrote: 'I had a piece for two pawns with a good position and naturally wanted to finish the game off quickly. I thought up the following combination: 1 exf6 ♗xf6 2 ♘e5 (attacking both the queen and the bishop at f5) 2...♕e6 (2...♗xe5 would lose him the two bishops and fatally weaken his d-pawn) 3 ♗a3 (everything's going fine) 3...♖f7 (all forced; now I thought Black must lose the exchange) 4 ♕b5 and Black has a lot of things *en prise*. There followed 4...♗e5 5 ♗xd5 and then suddenly 5...♕g6+. Now it would be best to call off the attempt to win the exchange and reconcile myself to the loss of a piece by 6 ♗g2, but in the heat of battle I played 6 ♔h1 and after 6...♗e4+ 7 ♗xe4 ♕xe4+ 8 ♔g1 ♕e3+ I resigned, as mate is forced. If you look at the position two moves before the unfortunate check you will realise why I overlooked it. The bishop at f6 blocked the queen's path to g6 while my own bishop at g2 stopped a check along the g-file. The check only became feasible because each bishop in turn left its original post.'

This explanation is worth considering. It is true that at times the blocking of a piece's line of force, followed by line opening due to the removal of the blocking man, can be the reason for a blunder, as the reader can discover from many

examples. All the same I don't think that such mechanical reasons alone explain the missing of the check at g6, or in the previous example the missing of the inactive bishop at a5.

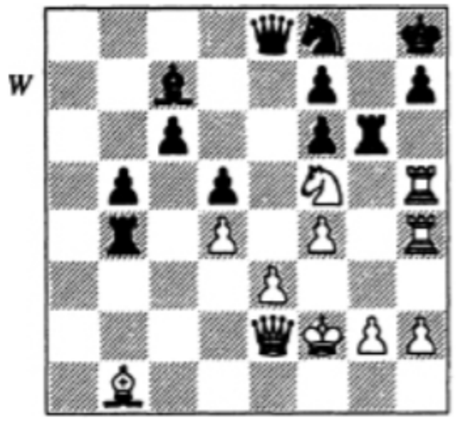
The main reason for the two blunders was the lowering of vigilance that can go with the recognition that the win is near. I am pretty sure that if Ilyin-Zhenevsky had not been material up then he would not have missed the check. The same applies in my case. You could be certain that these possibilities would not have been missed if it had been a question of defending a difficult game instead of playing to win a won one.

Alekhine believed it essential for every strong player to develop in himself 'unwavering attention, which must isolate the player completely from the world around him'. We failed to find this attention in the case of the two players who threw away the win in the two previous examples. On the contrary, they were over-confident, complacent in their recognition of the fact that they had a marked advantage, and so their vigilance was blunted.

We call this widespread complacency when the win is near 'Dizziness due to success'.

In my game with Smyslov in the 1950 Candidates' Tournament at Budapest I reached the following position in which I had to play my 39th move as White:

It is not hard to see that White has a comfortably won position. Quite early on in the game Smyslov had made a serious positional mistake and for many moves had been mechanically playing his pieces to and fro without any hope of salvation. I too had not been trying to force matters.



'Why are you moving so aimlessly?' enquired the Argentinian grandmaster Najdorf in surprise.

'I'll just adjourn it and let my second do some work,' I replied with a confident smile. 'Possibly Vasily will resign it as hopeless without playing on after the adjournment.'

This was the way things had been going for about a couple of hours, but suddenly I saw an interesting combination and I had a long think. I analysed first one variation, then another. Everything fits! So I played my move in a decisive fashion. Smyslov was in time-trouble and had no choice anyway, so he replied quickly and I went on playing out the line 39 ♖xh7+? ♘xh7 40 ♕h5 ♕g8 41 ♘e7 ♖xg2+ 42 ♔f3.

Now Black's position looks hopeless. We had got the moves in for the first session of play and Smyslov had gone away somewhere. Having played my 42nd move I got up too and not without some pride walked about the stage.

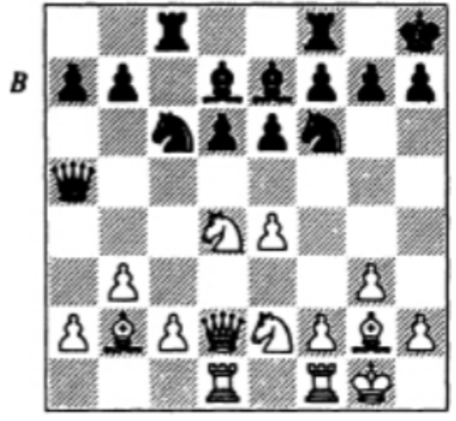
'Marvellous!' whispered a delighted Najdorf into my ear, put an arm round my shoulder and walked with me across the stage. Suddenly we both froze on the spot. Apparently the same unexpected idea had struck both of us at the same time -we realised that Black had a nasty check that refutes the whole combination.

I went back to the board only to confirm that 42...♖f2+!! would win for Black at once. Smyslov appeared and sat down at the board with the same gloomy look on his face as before.

He sat like that for a couple of minutes and then suddenly I saw a flash of glee in his eyes. He looked up at me and I realised it was all over. He moved his rook to give the killing check and I resigned as 43 ♔xf2 ♖b2+ wins out of hand.

There is no doubt that the reason for my awful oversight was over-confidence that sapped my sense of danger. So that is where to look for the cause of bad blunders, namely in the exulting feeling of self-congratulation. When your head is spinning with success that is the time when the blunders occur. So try to develop the rule for yourself that when you seem to be getting close to a win, be on the look-out. The nearer the win seems, the more psychological basis there is for making a mistake.

Ilyin-Zhenevsky quotes another such example: 'In my game with Emanuel Lasker in the 1925 Moscow Tournament I reached this position after my 13th move 13 ♘ce2:



'Instead of exchanging queens Lasker, to the surprise of everybody, played 13...♕xa2 14 ♖a1 ♕xb2 15 ♖fb1 ♕xb1+ 16 ♖xb1, giving up his queen for rook, bishop and pawn. I have to admit that even now I do not understand this combination and share the opinion of Bogoljubow who

wrote in his notes to the game that Black has run grave risks of losing by his sacrifice. At the time I thought Lasker and the other players, including Bogoljubow, held the same opinion. The thought really set me going. Just think. The day before I had beaten Capablanca, today I was winning against Lasker. Things were really going my way! So I started playing sharply, partly because I was in some time-trouble: 16...♖fd8 17 c4 ♘e8 18 f4 a6 19 ♔h1 ♘c7 20 ♕fe3 ♖b8 21 ♖d1 ♘b4 22 ♕c3 a5 23 ♖a1 b6 24 ♕e3, but now came 24...e5 and Lasker won the exchange and pretty soon the game too. Naturally my last move is a gross blunder but I had already compromised my position by this stage. That is how you are punished when you get carried away by success.'

Clearly a case where no further comment is needed!

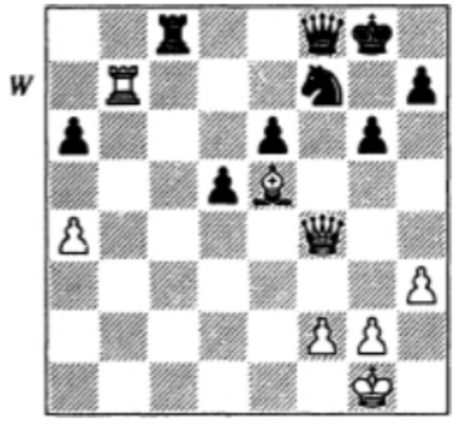
I have had occasion to analyse adjourned games and other positions with Paul Keres, and I have always been struck by one strange thing about his line of approach. Having found one way to win the Estonian grandmaster straight away starts looking for another.

Everything looks simple, White wins a piece, but he isn't satisfied and he tries to find something even better. Can't he win the queen instead? I lose patience and say loudly, 'Is all this really necessary?' but my friend continues in silence to move the pieces about the board. It is a habit of his and he sticks to it.

The explanation must lie in the attempt of an inquiring mind to try to find as much as possible in every position, to discover all the finesses, to know to the nth degree all the strategic problems and tactical tricks that a position can hold.

However, this habit has a dangerous side to it. You find a way to win, but you don't stop there, you look for another. Having found it you start exulting: 'What a position I have! I can win this way, I can win that way.' Then you find a third possibility and you really have a high opinion of yourself. However, you then get the 'dizziness' as this over-scrupulousness turns into self-admiration and you could well be riding for a fall.

In Keres-Filip, Candidates' Tournament, Amsterdam 1956 the following position arose:



White has various ways to win. He could retreat the bishop to b2, while an immediate finish comes from the line 38 ♕f6 ♘xe5 39 ♕xe5. According to his second, Keres examined no less than five ways to win, but chose a sixth possibility 38 ♔h2? and after 33...♖c4! 39 ♕f6 ♘xe5 was a piece down as 40 ♕xe5 allows the exchange of queens by 40...♕f4+, when the ending is hopelessly lost for White.

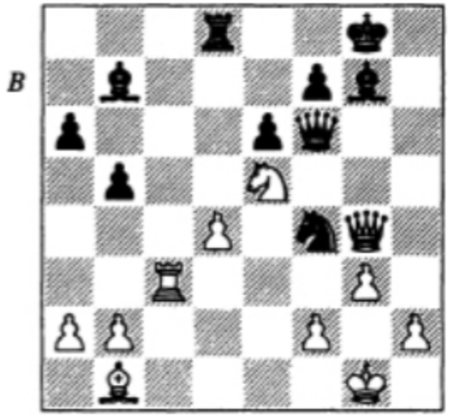
A fairly common situation, similar to the above cases, is that a player can win in either of two ways. One is simple and

straightforward, the other is pretty and involves a sacrifice. At such times a player's character shows itself very clearly: those who set great store by winning, by recording a certain point in the tournament table, prefer the first method; others don't need any invitation to sacrifice and fear no risk, even the risk of losing a whole point.

In every case a player ought to decide in accordance with his own considerations, tastes and tournament position, but a striving for false brilliance, especially when this does not arise from the logical requirements of the position, is to be condemned as faulty practice.

Moreover a striving after brilliance arises from a wrong attitude of mind – you think to yourself, 'I can pull off anything; just look, I can even sacrifice my queen'. It is only one short step from this attitude to the dizziness which encourages blunders.

In Freiman-Kan from the 9th USSR Championship 1934, the following position was reached after White's 28th move:



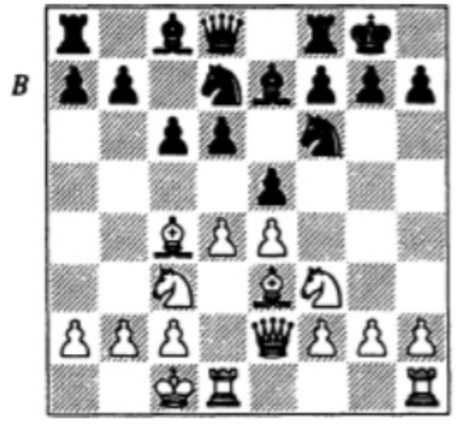
Black's simplest way of deciding the game was 28...♖xd4 29 gxf4 ♕xe5 and White has no defence, but such a prosaic line did not suit Black and he went for a combination by 28... ♘h3+ 29 ♕xh3 ♕xe5. Another bit of pretty play, but 29... 44xd4 was still probably good enough to settle matters in his favour, whereas now by 30 dxe5 ♖d1+ 31 ♕f1 ♖xf1+ 32 ♔

xf1 White could get a winning ending, and Black's striving after brilliancy would have been punished.

However it was now White's turn to blunder by 30 ♕h7+?? ♔f8 31 ♖e3 ♖xd4 and White immediately stopped the clock.

Conditioned Reflexes

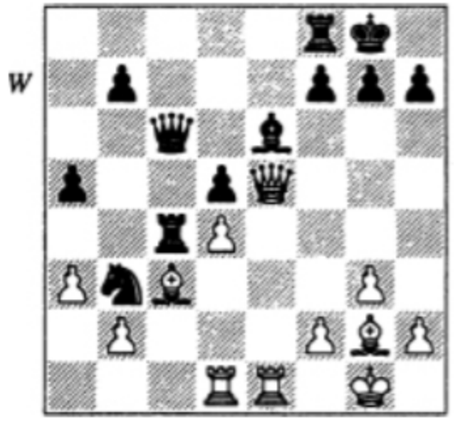
I trust my fellow grandmasters will forgive me for applying to the noble art of chess a term developed by physiologists in experiments with animals, but in essence the term 'conditioned reflex' does explain very well many of a player's actions during the game. Just as a dog can be trained to salivate at the sound of a bell, so many of a chess player's defensive reactions have been induced to appear by many years of habit-forming experiences. Recall, for example, how subconsciously you are on the look-out for a snap back-row mate, or how, without any real thought, you can assess the correctness or otherwise of the Greek gift sacrifice or a threat of smothered mate. Such automatic responses are generally helpful as they speed up one's thought processes and assist in making a correct assessment of strategic plans. However, at times this automatic response pattern can be harmful, as we shall see from the following examples in which it was the cause of mistakes. Such cases are admittedly rare, but anyone who wishes to study his own reactions and to know the finer points of winning chess must be familiar with such things. Which of us in playing the Ruy Lopez has not thousands of times played his bishop from a4 to b3 when it was attacked by a pawn? Which of us in the Sicilian has not played his bishop back from c4 to b3 when Black has attacked it by ... b5? It is almost as if your hand wanted to play the move straight away without the mind even thinking about it. In most cases the move is correct and forced, but there are exceptions. Take the following position from Grekov – Ilyin-Zhenevsky, Moscow Championship 1920.



Black wrote: 'I played the move 1...b5 without thinking. The move is in accordance with the spirit of this opening, a Philidor Defence, and here it has the extra point that White has castled queenside. My opponent's reply seemed equally clear to me. He would answer 2 ♗d3. You attack a piece, he has to move it away. Nothing of the sort! He continued 2 dxe5! dxe5 (no choice, as if 2...bxc4 then 3 exf6 ♘xf6 4 ♕xc4 with a winning position) 3 ♘xe5 ! bxc4 4 ♘xc6 ♕e8 5 e5!. This last move is the key to the whole line. The attacked knight has no flight square, so White wins back the piece and is left with a won ending.'

'An attacked piece has to move away.' How many games have been lost because a player blindly followed this reflex that had been developed in his subconscious!

A similar reflex to the one above is 'Make everything safe!' This is a guiding principle that lies behind many strategic and tactical plans of a grandmaster, and you may find it hard to go against the urge to do so, yet in a concrete situation this natural principle can be quite misleading.



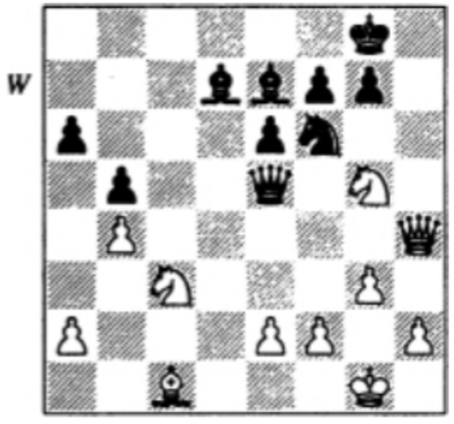
This is taken from a game in a match between Ilyin-Zhenevsky and Grigoriev played in 1919. (Alexander Ilyin-Zhenevsky seems to have made a significant contribution to the treasury of chess quirks and curiosities, possibly because he was that sort of person, possibly because he was active at a time when boldness was more successful than accuracy.)

1 f4 g6 2 g4 would give the initiative to White, but he automatically decided to play a safeguarding move and chose 1 h3? which turned out to be the loss of a decisive tempo and Black got in first on the other side of the board by 1...b5 2 f4 b4 3 axb4 axb4 4 ♗f1 bxc3 5 ♗xc4 ♕xc4 6 bxc3 ♗xh3 and went on to win. Why did White need to guard his g4-square? After all, the black bishop could not leave its present position because the d-pawn would be *en prise*! There can be no other explanation than an automatic response.

One of the most interesting cases of the appearance of conditioned reflexes is when we reveal the predominance, above all other factors, of our respect for the absolute power of the pieces that we learn very early on. This respect is most often shown towards the queen, even in positions when a win is to be had by sacrificing it. Even the strongest players are not immune to this disease.

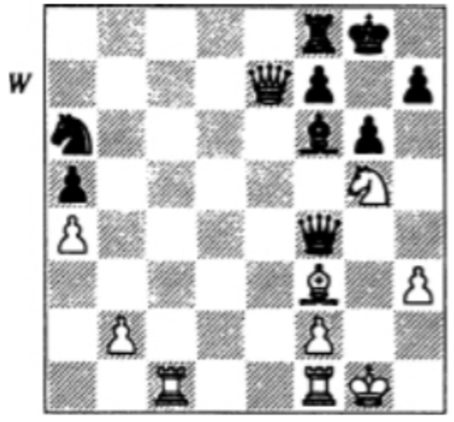
Here is Alekhine-Euwe, World Championship Return Match 1937, 16th game. It is not too hard to find a queen

sacrifice that would win a key pawn and decide the game in White's favour. However, even such a player as Alekhine, with his fantastic imagination showed too much concern for his queen and he did not find the move 26 ♕h8+!. (*Translator's note:* Kotov fails to tell the full story. Alekhine actually played 26 ♗b2 guarding his attacked knight and Euwe replied 26...♗c6?, whereupon Alekhine played a second safeguarding move 27 a3, failing to spot the win of the pawn a second time. Euwe then guarded his queen by 27....♗d6 and the chance had gone for good.)

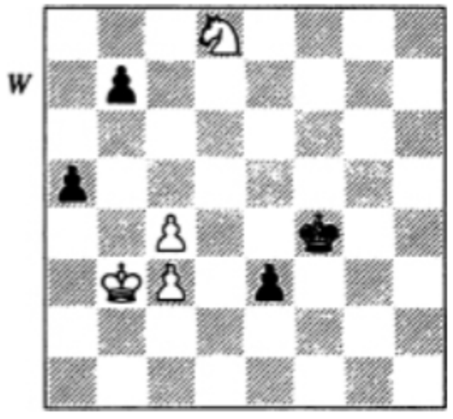


Max Euwe himself also suffered from excessive concern for his strongest piece and so failed to finish off quickly this game against Smyslov in the 1948 World Championship Match-Tournament (*D*).

After Euwe played 27 ♕e3 the game dragged on a long time, but the 'obvious' 27 ♕xf7+! ♖xf7 28 ♖c8+ wins after either 28...♔g7 or 28...♖f8 29 ♖xf8+ ♔xf8 as in both cases the white knight now comes in with a fork on e6.



A horrible example of how an 'obvious' move is conditioned by various factors arose in this position from the Botvinnik-Bronstein World Championship of 1951.



In this drawn position Bronstein (White) decided to try his luck by playing 57 ♔c2, thinking that after the obvious 57... ♔f3 his knight would still get back in time to stop the pawn as it would check on d4. However, Botvinnik made the far from obvious move 57...♔g3! and White had to resign as now neither king nor knight can stop the pawn. Botvinnik makes the following comment: 'A tragic oversight. Naturally White could draw easily by bringing his knight back, as the reader can see for himself. Apparently White lost his sense

of danger due to the influence of his material advantage. Note that the losing move was made after the time control.' This is an interesting comment. From it we get confirmation that a player can be influenced in the heat of the battle by overconfidence due to having gained the advantage. We have already spoken of this under 'dizziness due to success'. There are no less striking examples of Botvinnik himself falling under the influence of over-confidence and suffering for it. What is one to make of the 15th game of the return match against Smyslov in 1958, when during the second session of play Botvinnik had a much better position, but lost on time while looking long and hard for the most accurate way to win?

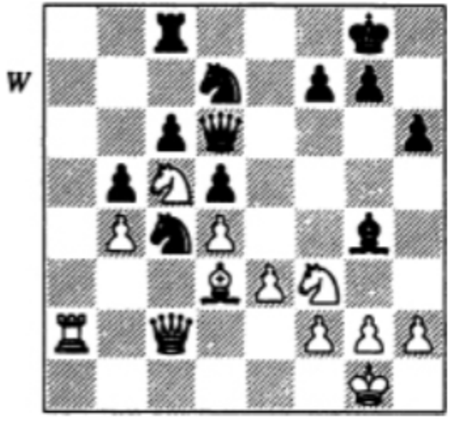
We also draw special attention to Botvinnik's comment about losing your sense of danger, a point we shall take up later. Note that in the very simple Bronstein ending the conditioned reflex was at work, telling you that the shortest distance between f4 and f2 is via f3 (which in the exceptional case of a king does not necessarily apply, as Bronstein failed to notice).

Having brought up the question of the geometry of the chess board, let us say something more about it. In our section on blunders we quoted the tragic happenings in the Kotov-Smyslov game, (see page 57) White's failure to foresee the rook check on f2 was not just due to dizziness. It was also based on a conditioned reflex that the rook was in front of the queen on the g-file and that they could not exchange places. If you think about kingside attacks that you have played with the aid of major pieces you will be able to confirm that you realise subconsciously whether the queen is in front of a rook on the open file or vice versa.

In the Smyslov game, if there were the slightest chance that the major pieces could change places with black queen on g2 and black rook on g8, then no grandmaster would ever fail to see the danger, but as this swap was impossible, White felt perfectly happy. Confidence that something cannot possibly happen is the source of many blunders.

Take another similar case. Have you ever found in your games that when there is a white bishop at d3 and a white queen at c2, a check is given at h7? Agreed, not very often! Why? Because there is no mate and so the check is pointless and unnecessary in the majority of cases. So little by little the brain gets used to not worrying about such a piece configuration. If the pieces were the other way round it would be a different kettle of fish! In that case a grandmaster would be prepared to sit for hours working out every possibility arising from ♕h7+.

It was just such a belief in the harmlessness of ♗h7+ that ruined Black in the next position, which is from Lengyel-Kotov, IBM Tournament, Amsterdam 1968.

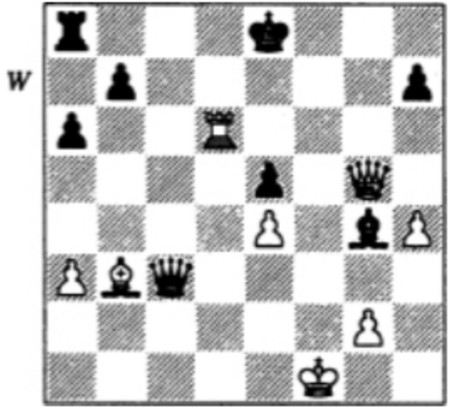


I had calculated a lot of variations which seemed quite all right for me and so I had just played my bishop from e6 to g4. As the small room in which we were playing was thick with smoke, I left it (as I usually do) and went for a stroll in the large adjacent hall. From there I noticed that my opponent

moved with the sort of hand movement that indicated a 'long' move. I couldn't make this out, so I returned to the playing room and was surprised to find that his bishop was next to my king, giving check. My first reaction was to write it off as a stupid move, but in the end I thought for a whole hour merely to convince myself that my game was hopeless.

The reason for all this is not hard to find. If White went 1 ♗f5 straight away, Black exchanges bishops and plays his attacked knight on d7 to b6, when everything holds. Now, however, after the check the black king will be on either f8 or h8 and a pawn is lost after 2 ♗f5. The exchange of bishops is forced and after 3 ♕xf5 the f-pawn is lost if the black king is on h8, while if it is on f8 then he must let the queen in on h7 again with the loss of a pawn. A single unexpected check led to a catastrophe.

Consider two other curious examples in which reflexes played their part. In Ilyin-Zhenevsky – Nenarokov, Moscow Championship 1922 this position was reached.

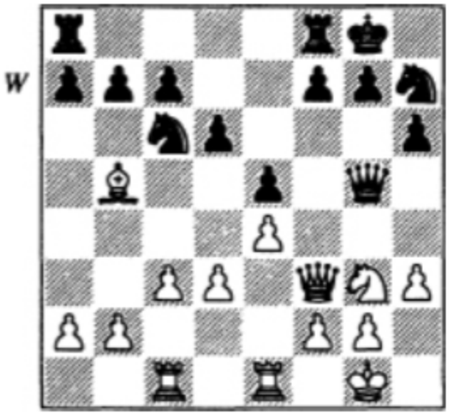


Look at Black's g8-square. Can the black king get there? Certainly not! It is attacked by both bishop and queen. This fact had been impressed deeply into White's mind and in his analysis he did not consider for a moment that the enemy king could get there. In fact he analysed a variation right to its end with a forced win for White.

1 ♗f7+! ♔f8 (1...♔xf7 2 ♖f6+ ♔e8 3 ♕g8+ ♔d7 4 ♕g7+ ♔e8 5 ♖f8 mate) 2 ♕h6+ ♔xf7 3 ♖f6+ 'Now I waited for Black to play 3...♔e8 when I would mate him by 4 ♕f8+ ♔d7 5 ♕g7+ ♔c8 6 ♖f8. Suddenly, horror of horrors, came 3...♔g8 and there is no mate. Yet if I had played 2 ♕xg4 Black would have had to resign.'

Examine your own games and see if in the course of your thoughts you have had such oversights – 'He just can't move to that square'.

No less common are cases where a certain file, rank or diagonal is closed by a pawn. Throughout the whole course of the game this line is seen as closed and therefore there can be no danger along it. Then in our analysis we envisage a move which moves the blocking pawn, yet we still visualise the line as closed.



Here is yet another blunder by Ilyin-Zhenevsky. In the 3rd game of his 1923 match with Nenarokov the black queen and white bishop are held firmly apart by the black e-pawn. White played 1 ♖f1 g6 2 ♕e3 ♘e7 3 f4. Now came 3...exf4 4 ♕xf4 ♕xb5. 'This was something I hadn't dreamed of,' he comments, and adds: 'The idea that the queen couldn't attack the bishop because of the barrier of the black pawn had become so firmly established in my consciousness that

even when the queen took the bishop I thought that it had played an illegal move by jumping over the pawn.'

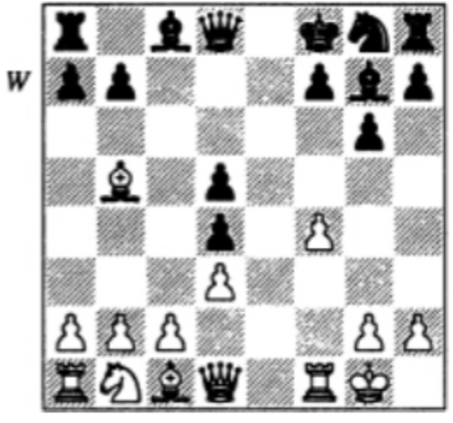
The Blind Spot

In Perelman's book *Physics for Fun* he mentions this interesting experiment. Get a person to stare fixedly for a time at a square and quite soon he will fail to see a large black dot that lies near the perimeter of the square. The reason is that we have a so called blind spot in our eye, so that we can miss an object which falls within this blind spot.

Something like this happens in chess. Sometimes a strong player fails to see an elementary attack on one of his pieces. It is as if for a moment that piece has come outside the range of his vision and he forgets about it completely.

A classical example of such a blind spot is Alekhine-Blackburne, St. Petersburg 1914 (*D*).

Here Alekhine played 1 ♘d2 and after 1...♕a5 2 a4 a6 the bishop was lost. After the game Alekhine was asked how he could explain this blunder, and he replied that he had forgotten about the piece, just as if it wasn't on the board.

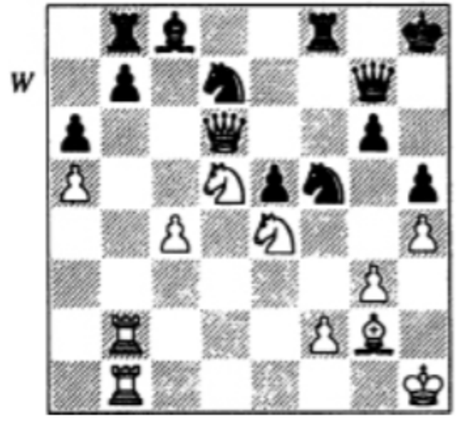


Yes, forgot! The future world champion, who was already a very strong grandmaster, failed to notice the bishop. After

that you cannot fail to concede that there is such a thing as the blind spot.

Here is another example, possibly even more striking, as yet another future world champion forgets about his queen and loses material, not just in two moves as in the last example, but straight away.

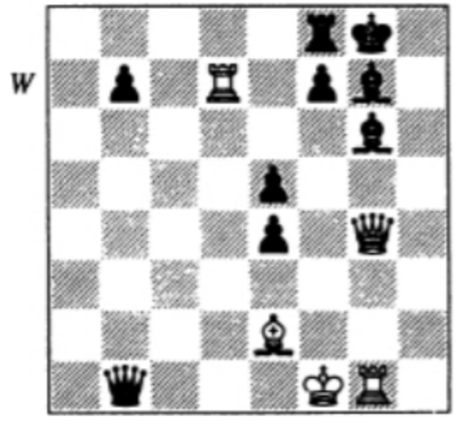
In Petrosian-Bronstein, Amsterdam Candidates' 1956 White had a totally won game after 35 moves.



Now any queen retreat would secure the win, but instead of this Petrosian forgot about his queen and played 36 ♘g5??. Naturally after 36...♘xd6 he resigned straight away. Petrosian commented later that the most comic feature of the blunder was that he overlooked an attack from the only black piece that was at all active.

Take another case. During one round of the 1946 Moscow Championship the usual silence of the tournament room was shattered by a frightful cry. The players jumped up from their seats and went over to the board where the game between Bronstein and Bonch-Osmolovsky was being played. The temperamental player of Black (who by the way was a good boxer and was well used to receiving physical blows as well as mental ones) was sitting there holding his head in his hands, while young David Bronstein, who was

also very upset by the unexpected reaction of his opponent, was showing everybody what had happened.

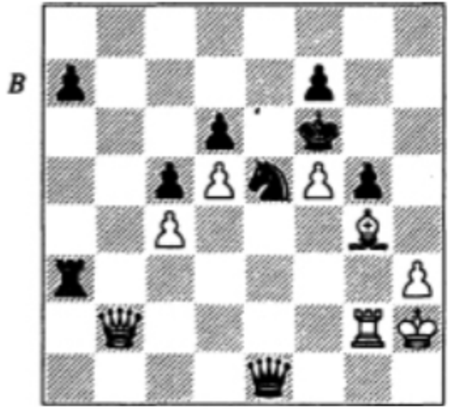


In the diagram position Black had just checked with his queen. White moved out of check by ♔g2 and after some thought Black played ...e3. Bronstein then replied ♖xb1.

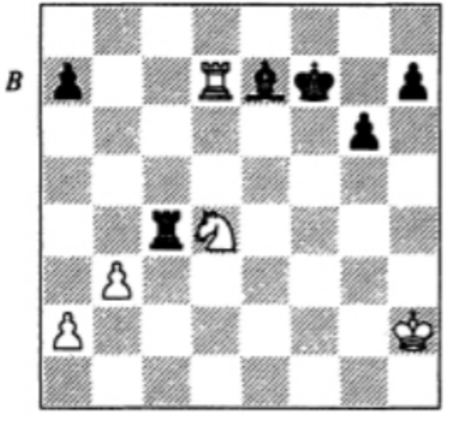
'It's just terrible,' said Bonch-Osmolovsky in his distress. The white king on g2 is a big piece and I didn't notice the fact that the white rook behind it was now attacking my queen.'

Possibly the height of the king had something to do with it, but there is no doubt that here we have the blind spot at work again.

Finally two clear examples of a blind spot. In Romanovsky-Kasparian, Semi-Final 11th USSR Championship 1938, the famous study composer had achieved a won game with Black, and now found to his own satisfaction a study-like way to win the game.



He played with a decisive gesture of the hand 1...♖xh3+. He had worked out 2 ♔xh3 ♕h4 mate or 2 ♗xh3 ♘f3 mate. White captured the rook with his bishop and at the same time stopped Kasparian's hand from moving the knight. An illegal move – the knight is pinned against the king.



This is Ebralidze-Ragozin, 10th USSR Championship, Tbilisi 1937. The position and what follows has already passed into chess folklore. In order to defend himself against the various threats, Ragozin played 40...♖c7?? intending after 41 ♖xc7 to recover the piece by 41....♗d6+. It is related that the Georgian fans in the audience noticed straight away that the bishop was pinned and some of them were even so carried away as to shout out, 'Archil, take his rook'. But Archil Ebralidze merely glared angrily at the offenders. The blind spot did its work, he failed to notice the pin and retreated his attacked rook!

Through the Eyes of a Patzer: Blumenfeld's Rule

Many of the errors we have considered have one other cause, which we consider to be the most common of all. In analysing a long variation, a grandmaster is naturally worried about failing to notice something in the position that he thinks will arise five or six moves hence. It is hard to

foresee what will happen then, to notice all the finesses on the way to that distant future, so the player concentrates all his attention on it.

And then it often happens that at the very first move, right at the base of the analytical tree, the player fails to notice an elementary piece of tactics or an obvious threat. Believe me, this is often the reason for your mistakes, reader, and I must confess that in my case such blindness, such a failure to spot what has been right under my nose, has been a common occurrence.

How can one combat this tendency? Many years ago I went into this question with the leading Soviet master Blumenfeld. He had done a lot to reveal the psychological aspects of the game and had written a postgraduate thesis on the subject. Blumenfeld himself also had occasion to bemoan the fact that he too often failed to see what was 'under his nose' and he claimed that the same thing applied in varying degrees to the world's best players.

To fight against this grave risk he suggested the following rule, which I will call the Blumenfeld Rule.

When you have finished analysing all the variations and gone along all the branches of the tree of analysis, you must first of all write the move down on your score sheet before you play it. I have observed the practice of many of my fellow grandmasters and I have noticed that the great majority of them write the move down before playing, though a minority do it the other way round.

You should write the move down in the long form (i.e. as 1 e2-e4 e7-e5 2 ♘g1-f3 ♘b8-c6 3 ♗f1-b5 a7-a6 and not the 'short' form 1 e4 e5 2 ♘f3 ♘c6 3 ♗b5 a6) in neat handwriting. Every figure, every letter should be written

very clearly and carefully. By writing the move down in this fashion, you tear yourself away from the distant future of your game to which you have just devoted a valuable half-hour, and you return to the here-and-now of the actual position on the board in front of you.

Then, when you look at the board again, with your move written down but not yet played, you will be looking at it not with the eyes of one gazing into the distant future but with the eyes of someone who is present in the tournament room, of someone who recognises the present reality and the worries of the present moment. This is your first step on the road that brings you back to the present. Even now you must not hurry to make your move. Spend another minute looking at the position – you won't have cause to regret it – and look at the position through the eyes of a patzer. Imagine you are not a grandmaster or master, but a mere beginner. Am I threatened with mate in one? In two? Is my queen *en prise*, or my rook? Am I blundering a pawn away? Such an elementary check will almost certainly save you from an immediate oversight on the first move and is a sound supplement to the deep analysis you have just finished.

By following this Blumenfeld Rule you will be able to combine depth of thought with practical accuracy and blunder-free play.

More Practical Advice

To Analyse or Not to Analyse?

Having dealt with questions such as the correct way to analyse, how to find and choose the strongest moves, the

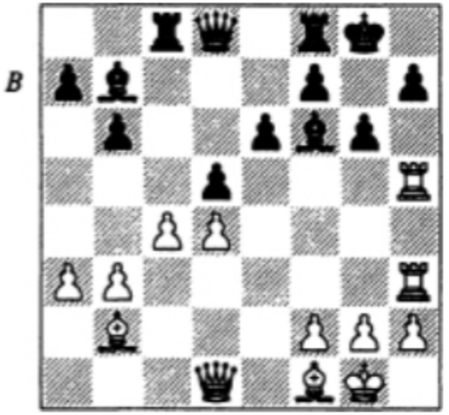
reasons for blunders and how to avoid them, there now remains the task of giving some valuable pieces of advice.

In grandmaster and master games one often comes across complicated positions in which the search for the right move involves analysing an immense number of perplexing variations.

In the great majority of cases this analysis has to be undertaken within the limits of practical play. However there are cases when the purely practical side of things induces the player to choose another line entirely.

This can be best explained by considering the following game, Keres-Smyslov, Candidates' Tournament, Zurich 1953.

Keres' last move 19 ♖c3-h3 offers a rook sacrifice. Should Black take it? The natural thing for Smyslov to do would be to settle down and analyse the acceptance of the offer right through to the end. Natural, agreed, but not in the given position and in the given tournament situation in which Black found himself.



Sometimes a player has to consider not just the demands of the position but the whole question of tournament tactics. How much time has he on the clock, is time-trouble coming up, does his standing in the tournament demand taking risks, or is steady play called for?

The Keres-Smyslov game was played near the end of a very important tournament, the winner of which was to play Botvinnik for the world title. Smyslov was half a point ahead of Keres and naturally wanted to beat Keres and so beat off his challenge; but a loss would make Keres the tournament leader instead, and Reshevsky and Bronstein were not far behind either. Hence Smyslov had good reason for thinking how to approach this situation before deciding to go deeply into the rook sacrifice, which would carry the risk of time-trouble, when anything can happen. He had no wish to lose first prize and the chance of being world champion by a hasty move in a time scramble.

Now here is how Bronstein describes the situation in his marvellous book on this tournament:

'As Smyslov related later, "I spent a long time thinking here. I felt like taking the rook, especially as I could not see a win for White in that line." It is indeed nice to be a whole rook up, and one's first thought must be that if it is not taken and Black fails to win the game, how annoyed one will be. Moreover, next move he will take the h-pawn, so take his rook! There can be no question of working it all out over the board. You simply have to examine the main lines and then rely on your judgement.'

Smyslov, however, did not take the rook but played instead 19...dxc4, which Bronstein awards two exclamation marks. Bronstein then continues with this comment:

'Smyslov's intuition did not let him down and he played the best move as was shown by subsequent analysis. But how did he make up his mind? If one may put it this way, how did intuition work? Did he weigh it up carefully or did he just toss a coin, as it were?

'Obviously the move must have been the product of deep study of the position. Firstly Black opens the diagonal of his b7-bishop, which can now be transferred to e4 and then g6. He also opens the d-file and gets the chance to put his queen on d5, threatening mate, or even just to take the d-pawn. Thirdly, he gets just for the moment a passed pawn on the c-file which can advance to c3 so as to block the dangerous long black diagonal. Meanwhile the rook is left *en prise* and could be safely captured, for example in the variation 20 bxc4 gxh5 21 ♕xh5 ♗e4.

'For curiosity's sake, though, what would happen if Black took the rook straight away? Would the king flight attempt 19...gxh5 20 ♕xh5 ♖e8 save him? It seems White could close the door on the retreat by 21 a4!!, threatening ♗a3, e.g.:

1) 21...dxc4 22 ♕xh7+ ♔f8 23 ♗a3+ ♖e7 24 ♖g3.

2) 21...♕d6 22 c5 and now:

2a) 22...bxc5 23 ♕h6 ♗g7 24 ♕xh7+ ♔f8 25 dxc5.

2b) 22...♕d8 23 c6 ♖xc6 24 ♗a3 ♖d6 25 ♕h6 ♗xd4 26 ♗d3.

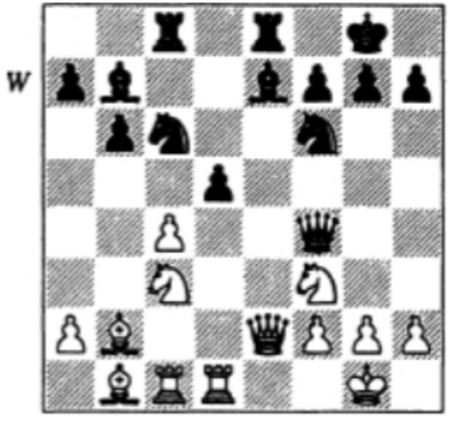
2c) 22...♕f4 23 ♖f3 ♕g5 24 ♖g3.'

Considerations such as fear of time-trouble and the tournament position of the leaders thus led Smyslov to refuse the rook offer, without even looking too deeply into the variations. True, he did have a good move in reserve which general considerations led him to choose, considerations which it took much less time to weigh than deep analysis would. The great majority of grandmasters, with the possible exception of Tal, would play the way Smyslov did, especially as it led to a quick win for Black.

The remaining moves were 20 ♖xh7 (Keres could still have drawn by 20 ♕g4 c3 21 ♗xc3 ♖xc3 22 ♖xc3 ♕xd4 23 ♕xd4 ♗xd4 24 ♖c7 gxh5 25 ♖xb7, but he was playing to win) 20...c3! 21 ♕c1! ♕xd4 22 ♕h6 ♖fd8 23 ♗c1 ♗g7 24 ♕g5 ♕f6 25 ♕g4 c2 26 ♗e2 ♖d4 27 f4 ♖d1+ 28 ♗xd1 ♕d4+ 0-1.

We can conclude that it is sometimes advisable to avoid analysing complicated variations at all, so as not to get into time-trouble or to avoid unnecessary risk. This can be done when you have a sound move in reserve, even though it may not be the very best one. The fact that it is not best is compensated for by the fact that you save time. You will be thankful for this pragmatic decision when your opponent is short of time and you still have on your clock the valuable minutes saved earlier on.

Such cases of avoiding complications and risks are quite common. Take for example the Keres-Taimanov game from the last round of the 19th USSR Championship 1951, which began 1 c4 ♘f6 2 ♘f3 e6 3 ♘c3 d5 4 e3 ♗e7 5 b3 0-0 6 ♗b2 b6 7 d4 ♗b7 8 ♗d3 dxc4 9 bxc4 c5 10 0-0 cxd4 11 exd4 ♘c6 12 ♕e2 ♖e8 13 ♖fd1 ♖c8 14 ♖ac1 ♕d6 15 ♗b1 ♕f4 16 d5! exd5 (*D*)



Keres now had two candidate moves – 17 ♘xd5 and 17 cxd5. It is not hard to see that the capture with the knight

leads to great complications, while the pawn capture leaves much more of a calm position. The analysis of the first line cost Keres a great deal of time. Here are the variations which he examined after the forced sequence 17 ♘xd5 ♘xd5 (or 17...♕h6 18 ♖e1 leaves White with a big advantage) 18 cxd5 ♗f6!:

1) 19 ♕c2 ♗xb2 20 dxc6 ♗xc1! 21 ♕xh7+ ♔f8 and now 22 cxb7 ♖d8 or 22 ♖d7 ♕h6 and Black wins, whilst 22 ♕h8+ is also bad because of 22...♔e7 23 ♖d7+ ♔f6 24 ♕h5 g6 with a big advantage to Black.

2) 19 dxc6! (a queen sacrifice which Keres spent a lot of time on) 19...♖xe2 20 cxb7. Keres writes: 'True, I could not analyse all the ramifications of the complicated variations which would then arise.' Then he gives what he did see while studying this position:

2a) 20... ♖xc1 21 ♖xc1 ♗d8 (or 21...♖e8 22 ♖c8 ♕a4 23 g3 ♕d7 24 ♗f5 winning) 22 ♖c8 ♕d6 23 g3 ♖xb2 24 ♗e4 and wins.

2b) 20...♖ce8 21 ♗xf6 (after 21 ♖c8? ♗xb2! 22 ♖dd8 ♕c1+! 23 ♖xc1 ♖xd8 24 ♖c8 ♖ee8) 21...gxf6 (21...♕xf6 22 ♖c8 ♕e6 23 ♖dc1 and Black is in trouble; he also is in a bad way after 21...♕b8 22 ♘d4!) 22 ♖c8 ♔g7 23 b8♕ ♕xb8 24 ♖xb8 ♖xb8 25 g3 and the ending is a win for White.

2c) 20...♖b8 21 ♗c5! ♖xe5 22 ♘xe5 g6 (22...♕xe5 23 ♖c8+ ♕e8 24 ♖dc1! ♗e5 25 ♖xe8+ ♖xe8 26 ♖e1! is winning for White) 23 ♘d7 ♖xb7 24 g3! and now Black loses his bishop, whereupon White has both material advantage and the attack (24...♕f3 25 ♗e4!).

2d) 20...♖f8 21 ♗a3 (21 ♗rf6 ♕xf6 22 ♖c8 is worse since after 22...♖ee8 23 b8♕ ♖xc8 24 ♕xa7 ♕b2 Black has

adequate counter-play) 21…♗e7 22 ♗xe7 (or 22 ♖c8 ♗xa3 23 ♖dd8 ♕c1+!) 22…♖xc7 23 ♖c8 g6 24 b8♕ ♕xb8 25 ♖xb8 ♖xb8 and White's advantage in the ending may not be enough to win.

No doubt about it, Keres did a very deep and taxing piece of analysis. After the natural knight capture on d5 White has an advantage in all variations. What does the experienced grandmaster do now?

Keres in fact comments: 'This analysis shows that 17 ♘xd5 would undoubtedly leave White with the better game, but the complicated nature of the variations arising rather incline one to prefer 17 cxd5 as more appropriate in practical play.'

And in fact after 17 cxd5 ♘b8 18 ♖d4 ♕d6 19 ♖cd1 ♗f8 20 ♘e4 ♘xe4 21 ♖xe4 ♖xe4 22 ♕xe4 ♕h6 23 ♘g5 ! White got a crushing attack on all fronts. The end of the game was 23…♗d6 24 h4! ♘d7 25 ♕f5 ♘f6 26 ♗xf6 gxf6 27 ♘xf7 ♕c1 28 ♕xh7+ ♔f8 29 ♘xd6 ♕xd1+ 30 ♔h2 ♕xd5 31 ♘xb7 ♕e5+ 32 g3 ♖c7 33 ♕h8+ ♔f7 34 h5 ♖xb7 35 ♕h7+ ♔e6 36 ♕xb7 ♕xh5+ 37 ♔g2 1-0

Positions for Analysis or Judgement?

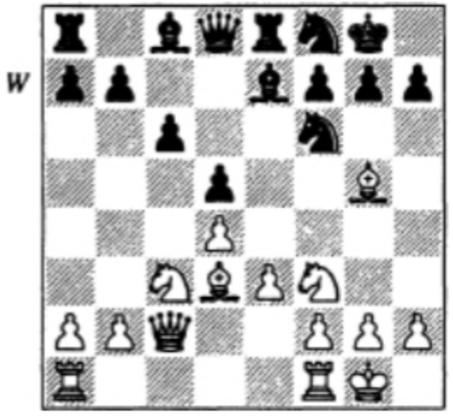
In considering analysis we have now seen a number of positions where the game was decided by a player penetrating deeply into intricacies of complex positions. The positions could only be assessed by this means because of their nature.

We have already stressed that a player who wishes to become a grandmaster must be able to analyse accurately, as this is what decides the majority of games. Nevertheless,

there are positions and even whole games where analysis recedes into the background and the principal factor is positional judgement, overall assessment. In such cases a grandmaster relies on the quality which is developed by experience, the quality we call his positional understanding or judgement.

How does one decide which positions come under this heading and which demand thorough analysis? I feel the answer should be understood by everyone. The character of a position is generally determined by the type of opening. When a position is closed and lacks direct contact between the opposing forces, then the choice of the best move is normally made based on positional factors and positional considerations predominate; when the opening leads to sharp hand-to-hand fighting then you analyse and analyse.

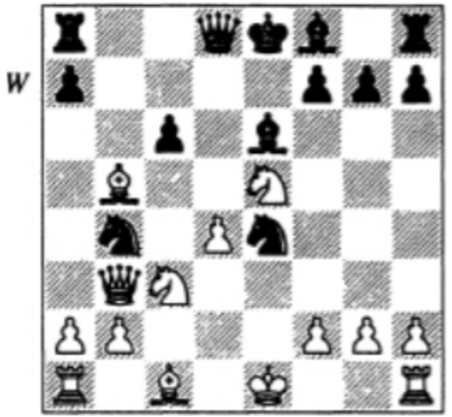
To clarify this let us take two examples from the opening. In the Queen's Gambit, after 1 d4 d5 2 c4 e6 3 ♘c3 ♘f6 4 cxd5 exd5 5 ♗g5 c6 6 e3 ♗e7 7 ♗d3 0-0 8 ♘f3 ♘bd7 9 ♕c2 ♖e8 10 0-0 ♘f8 it would be a needless and pointless waste of energy to analyse variations.



In such positions a grandmaster considers where to move each piece, what weakening he can thereby induce in his opponent's position and what point in his own position

needs strengthening. Thinking will be based on general considerations without concrete analysis.

The case that arises from the moves 1 d4 ♘f6 2 ♘f3 d5 3 c4 ♗f5 4 ♕b3 ♘c6 5 ♘c3 e5 6 cxd5 ♘b4 7 e4 ♘xe4 8 ♗b5+ c6 9 dxc6 bxc6 10 ♘xe5 ♗e6 is quite different.

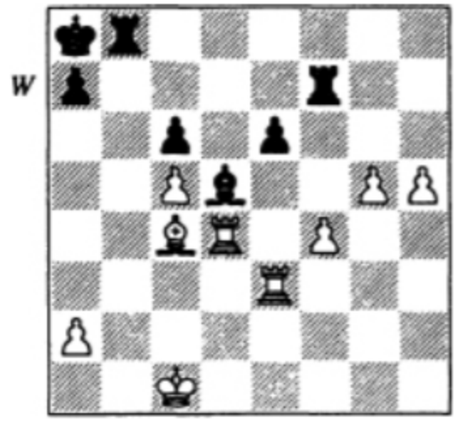


This position arose in Belavenets-Lisitsyn, 10th USSR Championship 1937.

Here it is easy to understand that if one side worked only on general principles then one would not get very far. Be careful, or you could finish up losing a piece. In this position analysis is the main feature: cool, accurate analysis, checking every possibility.

Having read this chapter, I hope you will not start analysing variations where you should be choosing the best move by judgement and assessing positional factors, and conversely will not go soaring off into the clouds when the white and black armies are closely locked in mortal combat.

One final point. Experience and the constant analysis of the most varied positions builds up a store of knowledge in a player's mind, enabling him, often at a glance, to assess this or that position. It is this erudition that helps a grandmaster to choose the right move without deep thought.



In this position, from the game Alekhine-Flohr, Nottingham 1936, White played 46 ♖xe6! and commented on the move: 'One of those combinations which an experienced player does not analyse to the end, since he knows that the kingside pawns must force their way through to win.'

So make sure that you have such an arsenal of chess knowledge that you can foresee what will happen.

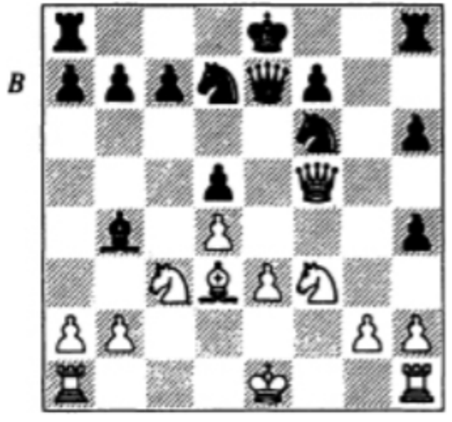
Trust Your Opponent or Not?

In the heat of the battle a grandmaster often comes up against the following situation: after analysing he comes to the conclusion that one of the candidate moves is fairly satisfactory for him, but then notices the tricky point that if he delays playing the move and induces his opponent to make a certain reply, the candidate will then win the game.

Then he begins to be troubled by doubts; should he play the move immediately or should he wait? There is a lot to be said for waiting. Your opponent might make the move you want him to, and then you will win. True, he might notice your cunning scheme and not make the concession you want from him – but there is a chance he might! In such situations only the strong-minded can resist the temptation and play

strictly in accordance with the demands of the position. Those of weaker character will probably try their luck.

Let us take an example of such weakness which was shown by a very gifted player of great practical strength. A game Ragozin-Levenfish, Masters' Training Tournament 1922 reached this position:



Levenfish analysed these lines after 13…♕xe3+ 14 ♔f1 ♗xc3 15 bxc3:

1) 15…♘e4! 16 ♗xe4 dxe4 17 ♖e1 ♕d3+18 ♔f2 0-0-0 19 ♕xe4 ♕xc3 20 ♖b1 ♘b6 21 ♖hc1 ♕a3 with the better game for Black.

2) 15…♔f8!! 16 ♖e1 ♘g4! 17 ♘e5 ♘dxe5 (this is the reason Black did not castle on the queenside, but moved his king instead) 18 dxe5 ♖e8 19 h3 ♕xe1+ winning.

What more could one want? Capturing on e3 gives Black the advantage in two separate ways, yet in the game Levenfish played the weaker 13…h3? and explained his error subsequently in these words: 'The appetite grows while you are eating. In both variations White could go into the ending a pawn down, so I started looking for even more and hit upon the combination 13…♘g4 14 ♕xg4 ♕xe3+ 15 ♗e2 ♗xc3+ 16 bxc3 ♕xc3+ 17 ♔f2 ♘f6 18 ♕f4 ♘e4+ and White must resign. However, White has the reply 13…♘g4 14 0-0! ♕xe3+ 15 ♔h1 ♗xc3 16 bxc3 ♘f2+ 17 ♖xf2 ♕xf2 18 ♖e1+ ♔

d8 19 ♕xf7 and it is White who is winning and not Black. So I made a move which prepares the combination with …♘g4, which would then win even after the reply 0-0.'

So he played 13…h3 with the idea that if White made the instinctive reply 14 g3, the move on which Levenfish pinned all his hopes, …♘g4 would have gained in strength as White would not then have time to capture the f-pawn with his queen at the end of the variation.

But what if White plays a different 14th move? This probably did not occur to Black, who was hoping that Ragozin would not see all the finesses of the position and would lose at once by 14 g3. However, this move was not played.

So after looking at this example of faulty judgement we make the rule, 'Never rely on your opponent making a mistake'. How many good games have suddenly been spoiled because this rule was broken, because a player was carried away by the temptation of a quick win!

Consider another case. Your opponent suddenly spends over half an hour over one move, then sacrifices a pawn. Should you capture it or not? If we look at it from a strictly theoretical point of view, you are bound to settle down and do the same as your opponent and consider all the possibilities right to the end. Only analysis can give you the right answer.

However, in practice a player often tackles it the other way round. He trusts his opponent's judgement, arguing that if a pawn has been offered after so much thought then it must be correct. The opponent has checked it through and has seen something, so 'Why should I waste half an hour when at the end of it all I shall probably come to the conclusion that it is

sound? Isn't it simpler just to trust your opponent and save time?'

If you happen to know your opponent well, then another criterion applies. What sort of player is he? If you know that he is very exact in his analysis then you can probably refuse the offer straight away. If he is not a rational player but loves complications and risks — if you have noticed in his play cases of bluffing —then you should check his analysis, provided you have the time to spare on your clock. If you check and catch him out in an incorrect offer then the extra pawn will come in handy! In such cases don't rely on him, but check it yourself. However, if you really have confidence in your opponent's analytical powers then save time — it may be useful later on.

One final remark. It was established long ago that many players think of the right move immediately their opponent makes his move. This unconscious working of one's chess intuition, developed by experience, has been formed by all the tournament games you have played over the years. My own personal observation is that the move that I have played reluctantly, as it were against the wishes of my hand, has often turned out to be a decisive mistake.

Naturally here you have to know your own reactions. Does the move that your hand is itching to make generally turn out to be the right positional reply? In that case you can generally rely on its promptings. I repeat: this is the product of experience. Your first reaction, your desire to stretch out your hand and make a move without analysis, is the product of some significant thought process and on the whole the impulse can be trusted, though not unconditionally.

Time-trouble

A grandmaster sits for hours at the board, amid the quiet of the tournament room. Sunk in thought, the only action comes every now and again as he moves a piece, stops his clock and changes his posture. Then follows another quiet, inactive period.

This is the case at the start of the game, but as time goes on and the end of the playing session approaches a feeling of tension fills the room. The spectators get excited, the controllers confer, the players become nervous. Time-trouble is on the way, that most interesting yet worrying stage of the game. This is when the game is normally decided, when the most mistakes are made. Time-trouble is a time of undeserved joy and painful sorrow.

When the flag rises and you have only a few seconds for the remaining moves you cannot help getting nervous. Some strong players lose control of their nerves. Reshevsky, for example, bounces up and down on his chair, whispers to himself and in fright glances at the clock.

With some the reverse is true. Bronstein, even in the most fearsome time-trouble, still manages not only to write down the moves but also continues to note the time taken by each player.

Time-trouble is blunder time. Can you justify these blunders by pointing out how short of time you were, and what a miserly ration of time you had left in which to make crucial decisions? No, you cannot. Nobody will take much notice; no official will change the result in the tournament table. I advise you to develop a sternly critical attitude to time-trouble errors, following the example of Alekhine

who wrote of one of his moves in a game against Tylor, Nottingham 1936: 'A horrible move, and in my opinion the fact that White was in time-trouble when he made it is no more justification than the claim of a law breaker that he was drunk when he committed the crime. The inability of an experienced master to cope with the clock should be considered as faulty as making an oversight in analysis.' Remember that!

Still, time-trouble is a real trial for the player and in my time I have seen all sorts of nervous reactions and unusual behaviour during it. I have told elsewhere of the controller who himself lost control and said to the players, 'Don't move so quickly, I can't follow what's going on!'

Once in a Moscow chess club I saw how two first-category players knocked pieces off the board as they were exchanged, so that the pieces fell onto the floor. It was as if they were playing skittles and not chess! Once the master Mazel stopped writing his moves down and tried to find out whether they had made enough moves by looking at the score sheet of his opponent, master Kopaev. The latter was annoyed by this and hid his score sheet under the table and brought it out again only after Mazel put a piece *en prise* on move 52, when the next time control was almost due!

So many strange haptakes hold of his earpsenings, so many tragedies! But if one has got into time-trouble, what is the best way to play? What advice can help? This is a big topic about which one could write reams, and in this book we must devote some attention to the problem.

As time-trouble approaches, the character of a player's thoughts changes. He thinks more about single moves than general problems, or, as Bronstein puts it, the nearer time-trouble you are, the more tactics you get and the less

strategy. He is an expert on this topic and his many time-trouble experiences have generally worked in his favour.

Perhaps the main problem is to keep control of your nerves. Not everybody can do this, which is why some cunning players deliberately aim to run short of time if they have a difficult position. They hope their opponent will get flustered and make a mistake. One has to know how to counteract such people and certainly you must recognise that some people do adopt tactics of this sort.

To some extent time shortage by your opponent must affect you. How can you keep calm if your opponent sitting right opposite you keeps twisting about, takes hold of his ears and bounces up and down on his chair? Smyslov told me his invariable defence against such conduct. When I grumbled to him that I could not stand the sight of Reshevsky squirming about in time-trouble, as if he were in a frying pan, he gave me this advice: 'You just go away from the board. You have enough time. Take a little stroll, and let him suffer on his own. When it's your turn to move, come back, and then repeat the process.' I tried the method. Although you lose some time it is a great help.

Some players argue that they must exploit their opponent's time shortage by playing quickly themselves. They take the line that they do not want to give their opponent the chance to think when his clock is not going. Knowing that it is unwise to move quickly because of the risk of blundering themselves, they try to think out a long variation, and then play these moves quickly, hoping to catch out their opponent, who has little time to work out the sequence. However, such a method of playing 'by portions' more often leads to errors on the part of the player with more time.

Naturally, the greatest problems come when it is you, and not your opponent, who is pressed for time. First of all, how are you to keep count of how many moves you have made, and how many there are to go to the control? You have given up keeping score and you can get no help from outside — the laws of chess do not allow you to ask anyone. Inventive players have thought up many devices to solve this one. Some set up a row of pieces that have already been taken off by the board and every time they move they take one away. As the original number of pieces in the row corresponds to the number of moves left you have a visual check, but what if in your haste you forget to remove one each time? Then you will have to make more moves than in fact are required before you feel safe.

Sometimes they write instructions for themselves on the score sheet. For examples against the 30th move they write 1 1/2 hours, against the 35th — 1 hour 45 minutes, but in practice they don't obey their own instructions and sit there short of time as usual!

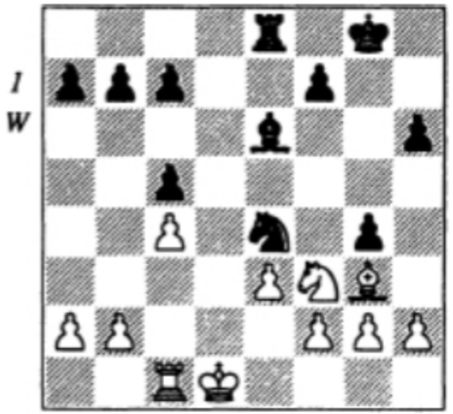
There is only one piece of advice I can give. Either don't get into time-trouble at all, or if you do, train yourself to play in time-trouble as if you were in fact not short. If your opponent is short, ignore him; play just as you played earlier in the game. If you are short, keep calm; I repeat, don't get flustered. Keep up the same neat writing of the moves, the same methodical examination of variations, but of course at a quicker rate.

Someone is bound to react here, 'That's all very well to advise, but how do you react yourself?' I can only say that as a rule the best players in the world do play in time-trouble as if they were not short of time. So learn to follow their example.

Exercises

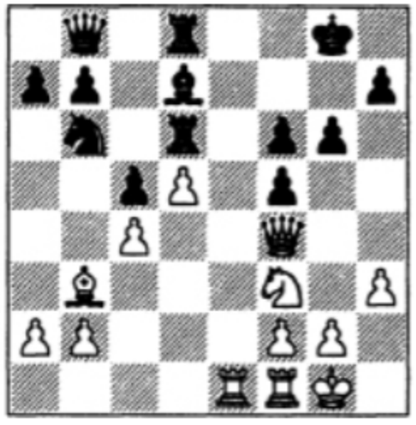
In order to give the reader a chance to train his analytical powers to learn how to find candidate moves we give some 'songs without words'.

Under each diagram the reader will find a task to perform or a question to answer. He should try to analyse the positions deeply without any outside help. Only then should he refer to the answers at the end of the book. I have tried to choose examples which have been deeply analysed in tournament books and games collections so that the interested reader can look the positions up for himself if so desired.



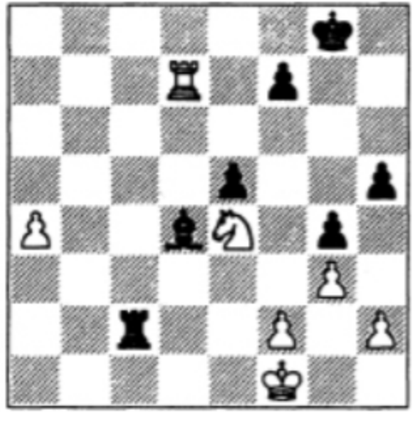
The knight at f3 can move to five possible squares. Which is the best knight move? Support your conclusion by giving variations.

2
W



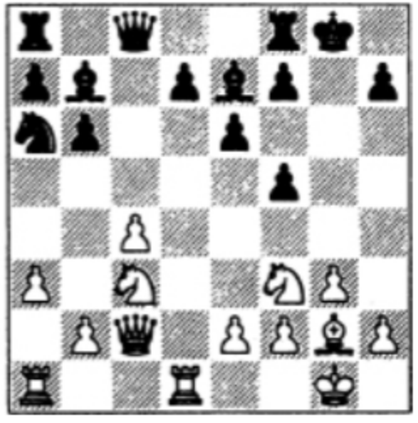
Does the aggressive 1 ♘d4 win for White?

3
W



Can White save himself? Analyse the variations.

4
W

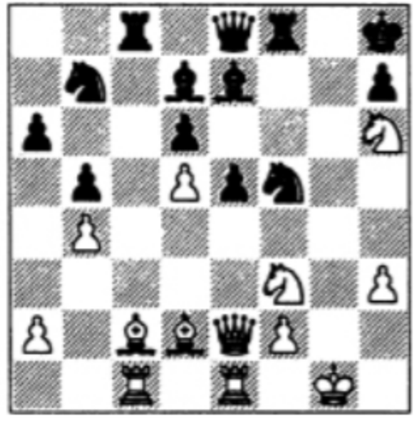


1 b4 gives White a positional plus, but does the move have a concrete refutation? Quote a number of variations.

5
W

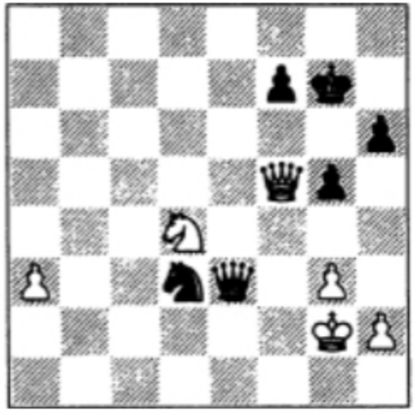
White played 1 ♗f1. Couldn't he save himself by 1 ♕xd6 or 1 ♖xd6?

6
W



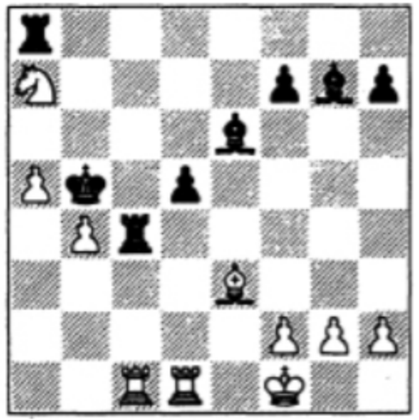
White continued 1 ♘xe5. Which black candidate moves had he examined in answer to this? Which variations had he analysed?

7
W



Can White move his knight or his queen?

8
B



Black went wrong by 1...♕xb4?. Can he save himself by 1...♕a4?

9
B

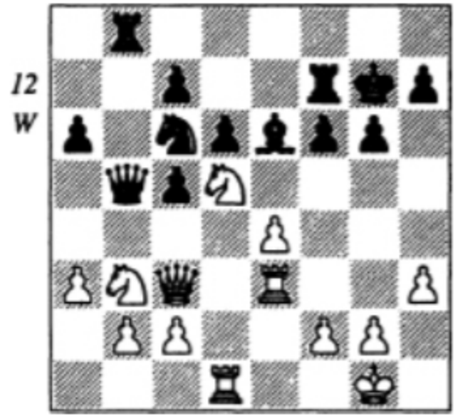
Find the best move for Black.

10
B

Can Black sacrifice his knight by 1...♘xg4+?

11
W

Is White safe after 1 ♘f6 ♘f4 2 ♘e4?



Can White play 1 ♘xc7 ♖xc7 2 ♖xd6?

2 Positional Judgement

Let us begin with an analogy. In the distant past, when a scientist working in the field of chemistry had to analyse a substance and discover its properties, he had to work mainly by eye. He did not have available the immense help that was provided by the later discovery of the elements, particularly by Mendeleev's periodic table. Once this powerful weapon in analysis had been discovered, a scientist was provided with the means of not only accurately determining the composition of a substance, but also of foreseeing certain scientific phenomena.

Chess players, for the greater part of the last century, found themselves in the same position as our old chemist, and had to work by rule of thumb, because they did not have available the positional teachings of Wilhelm Steinitz. They had to assess the position on the basis of their experience, by their own methods which were based mainly on comparisons. Once Steinitz had given his teaching to the world, chess masters had an analytical apparatus which enabled them to assess all chess positions with a fair degree of accuracy.

How does a chemist determine the composition of a substance? He determines first of all the presence of this or that chemical element, then determines the proportion of each element. Breaking down into elements is a method which one finds in many other branches of science. For example, the field in which I worked — mechanics and mechanical engineering — the most complex designs

consist of elements. No matter how complex an engineering drawing or blueprint, a trained engineer will discern the basic elements of the design, their interaction and then finally can assess the design of the new machine.

In just the same way does a chess master work in our time — a time of highly developed technique in all fields of human knowledge. To assess a position, the master has to break it down into its elements. He decides which pieces, both his own and his opponent's, are active and which passive, where there are weak points, where there are strong. He will see where there are open files and diagonals, those highways along which the line-moving pieces work in the direction of the enemy camp. The master takes account of every element and the role it plays in the given position. This analysis of the elements takes a great deal of the time devoted to the process of assessment.

Then, just as the chemist, having done his analysis, comes to his general conclusion as to the substance he is dealing with, so too the chess master synthesises the work he has done and reaches a general assessment of the position he is considering. All the work that he has done will give him the data on which to decide who, if anyone, stands better, and enable him to foresee the future course of developments. His conclusions are admittedly not as perfect as a scientist's analysis of a substance, but for the present stage of development of chess 'science' they are as accurate as possible.

Summing up, the process of assessing a position consists of the twofold process of analysing the elements of a position and then synthesising these factors.

The ability to assess a position correctly is one of the most important qualities of a good player. As Botvinnik

puts it: 'Everything is improving, including the technique of positional play. Players are becoming familiar with a growing number of typical positions, new methods are being developed, yet it seems to me that some of our masters are not devoting serious attention to them. Yet the ability to assess a position is just as essential as the ability to analyse variations.'

Steinitz and his successors introduced the following concepts about the basic elements of a chess position:

1. Open lines and diagonals
2. Pawn structure and weak points
3. Piece position
4. Space and the centre

They also considered the possession of the two bishops as a real factor in guaranteeing an overall advantage, though this particular question, more than any other, is today a controversial one. For example, I can think of few cases where the two bishops proved a decisive factor. As a rule endings won with the help of the two bishops had other favourable factors for the winning side (better king position, greater space, the presence of enemy weaknesses). On the other hand, I can recall quite a lot of cases where two knights showed the greater energy and really trounced the bishops. Hence I feel it would be better for us not to consider the two bishops as a factor that works independently of other factors.

In the time of Steinitz and Tarrasch, clearly formulated rules were held to be universal, whereas today, particularly because of the research of Soviet theoreticians, each one of the above positional concepts has been subject to some modification. As the reader will see later, the Soviet school

of chess teaches a creative and concrete approach to the resolving of each and every position. This method has enabled us to avoid scholastic and dogmatic assertions, and has led to a flowering of the art of chess. In this section on positional assessment I shall try to reveal to the reader those considerations which form part of the modern concept of positional play.

One final comment. One or other positional element can be a component part of our assessment, and can then suddenly turn into the decisive factor which guarantees success. You must realise this when carrying out your assessment and learn how to exploit it in practical play.

Open Lines and Diagonals

Nowadays every player of any strength knows the immense importance of open lines and diagonals, so we need not dwell too much on proving this. We shall merely take some striking examples which are characteristic of the modern understanding of this element.

Open lines are important because:

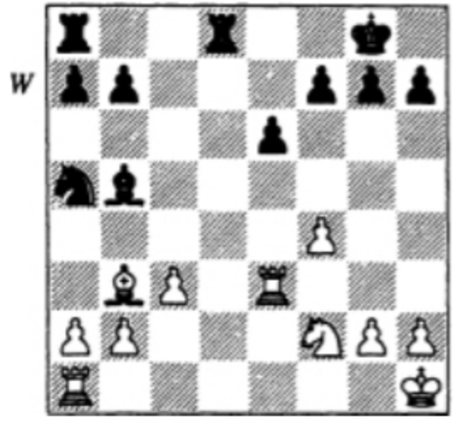
1. They are strategic highways. The side holding the initiative can penetrate along them into the enemy camp, and cut his army into two halves between which communication is difficult.

2. When weak pawns stand on open lines, then the lines facilitate the concentration of piece pressure on these weaknesses.

These factors are strikingly illustrated by the following examples:

Plater-Botvinnik, Pan-Slav Tournament 1947 went 1 e4 c5 2 ♘e2 ♘f6 3 ♘bc3 d5 4 exd5 ♘xd5 3 ♘xd5 ♕xd5 6 ♘c3 ♕

d8 7 ♗c4 ♘c6 8 d3 e6 9 0-0 ♘e7 10 f4 0-0 11 ♘e4 ♘a5 12 ♗b3 ♕d4+ 13 ♔h1 c4 14 c3 ♕xd3 15 ♕xd3 cxd3 16 ♘f2 ♖d8 17 ♖d1 ♗c5! 18 ♖xd3 ♗d7 19 ♗e3 ♗xe3 20 ♖xe3 ♗b5



Botvinnik comments. 'Everything is now clarified. Black has firm control of the d-file, and his bishop will be superior to the white knight (after the inevitable ♘xb3 by Black) especially in view of the weaknesses in White's kingside pawn structure.'

There is a world champion's assessment. The possession of the d-file is sufficient for Botvinnik to force a win in a position which looks almost equal. Note Botvinnik's next comment: 'For Rubinstein, the incomparable master of such a position, the win would now be a matter of technique. Hence Black's task was not very difficult here, as he merely had to follow a well-trodden road.'

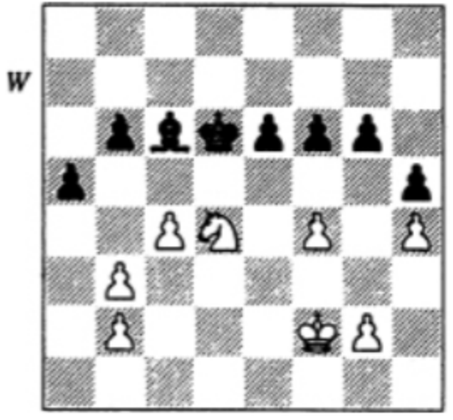
We shall mention later the need to study the heritage that has been left to us from the masters of the past. These words indicate that Botvinnik once spent many hours studying the way in which Akiba Rubinstein used to treat such simple positions.

21 ♘e4 h6 (intending ...f5 without letting the knight get to g5) 22 ♖ae1 ♘xb3 23 axb3 a5 ('White's three pawns are now only worth Black's two on the queenside. This will become clear once White plays c4' — Botvinnik) 24 h3 ♖ac8

25 ♔g1 ♔f8 26 ♔h2 ♖c7 27 ♔g3 b6 28 ♔h2 ♖cd7 29 ♔g1 ♖d1 30 c4 ♗c6 31 ♘c3 ♕xe1+ ('As soon as Black manages to improve his king position he can exchange the second pair of rooks, as Rubinstein on a number of occasions proved the superiority of bishop over knight in such positions' — Botvinnik) 32 ♖xe1 ♔e7 33 ♖e2 f6 34 ♔f2 ♖d6 ('Now the game is decided,' writes Botvinnik. 'White has no useful moves. He can achieve the exchange of rooks only at the expense of a further weakening of his kingside. However this only puts off the evil hour for a few moves.') 35 h4 h5 36 ♖e3 ♖d2+ 37 ♖e2 ♖d3 38 ♖e3 ♖d2+ 39 ♖e2 ♖xe2+ 40 ♘xe2 ♔d6 41 ♘d4 g6! (*D*)

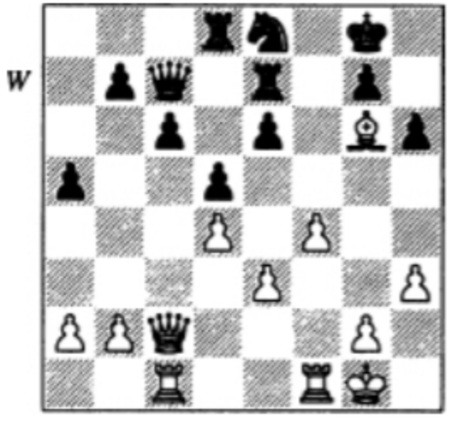
Black defends his f5-square and so gets in ...e5. After that the king has an open road to the queenside via d6, c5 and b4. White has no defenmce.

The game continued 42 g3 e5 43 fxe5+ fxe5 44 ♘c2 ♗e4 45 ♘e1 ♔c5 46 ♔e3 ♗f5 47 ♘f3 ♔b4 48 ♘d2 ♗c2 and after winning the forward b-pawn Black easily realised his advantage.



In this example Black needed only one rook on an open file to force the win. The rook penetrated the enemy position and split the enemy forces into two disconnected parts. This took place in an ending. Middlegame exploitation of an open file is usually a sharper process. A game that I recall particularly

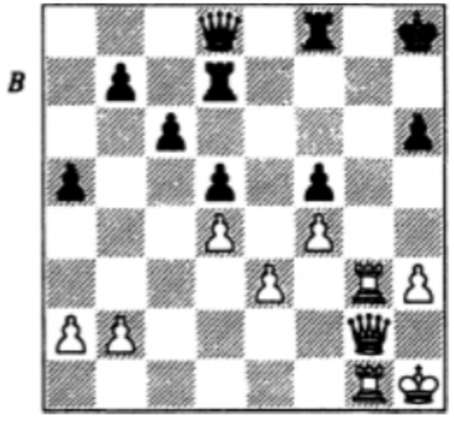
is my game with Steiner played in the USSR-USA match of 1955.



This position arose after Black's 24th move.

White's undoubted advantage is based on his control over the b1-h7 diagonal; this gives him a prolonged initiative. To strengthen the kingside pressure White plays to open the g-file.

25 ♖f3! ♘d6 26 g4 ♖f8 27 ♔h1 ♔h8 28 ♖g1 ♕d8 29 ♖fg3 ♖d7 30 g5! ♘f5 31 ♗xf5 exf5 32 gxh6 gxh6 33 ♕g2!

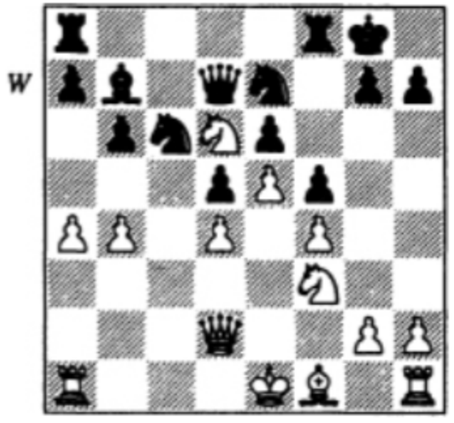


The complete success of the operation is now seen as White's major pieces dominate the file and deny Black's forces the chance to come to the defence of their beleaguered king. White's immediate threat is to penetrate on g7. Black naturally prevents that, and the white rook enters at g6 only to deliver the knock-out blow at g8!

Black can do nothing to counter White's domination due to the overwhelming strength of the tripled major pieces on the g-file.

33...♖df7 (defending against 34 ♖g7 as then after 34...♕e8 35 ♕g6 ♕e4+ 36 ♔h2 ♕c2+ 37 ♕g2 ♕xg2+! it would be Black who would have the advantage) 34 ♖g6! (threatening 35 ♖xh6+ ♖h7 36 ♕g7# against which there is no defence) 34...♕e7 35 ♘g8+.

A deep impression is also made by the action of the white rooks in Alekhine-Nimzowitsch, San Remo 1930.



By means of a few strong positional moves, Alekhine guarantees himself control of the only open file.

15 a5! ♘c8 16 ♘xb7 ♕xb7 17 a6 ♕f7 18 ♗b5!

Now Black is forced to defend the square c6 with all the men he can, so as to block the action of the white rooks down the c-file. If this bastion falls, then the rooks will break in and wreak destruction along the seventh and eighth ranks.

18...♘8e7 19 0-0 h6 20 ♖fc1 ♖fc8 21 ♖c2 ♕e8

Everything is brought up to defend c6.

22 ♖ac1 ♖ab8 23 ♕e3 ♖c7 24 ♖c3! ♕d7 25 ♖1c2!

The decisive regrouping! It is very important that the queen should act from behind the rooks. In that way it is easiest to penetrate into the enemy position, as the rooks can invade on squares which are covered by enemy rooks, whereas a queen would be too valuable to sacrifice.

25...♔f8

Even the king has to come up to defend the entry points on the c-file.

26 ♕c1 ♖bc8 27 ♗a4!

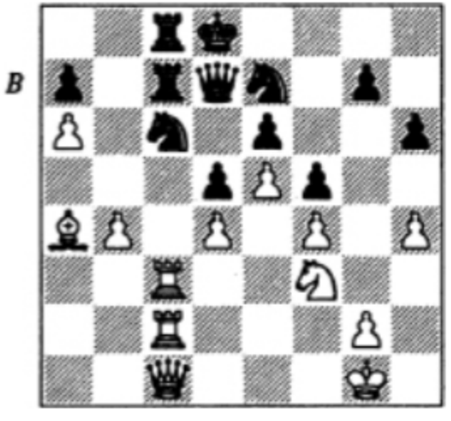
So as to have b5 available when needed.

27...b5

Black has to play this sacrifice but it does not reduce the ferocity of the white pieces.

28 ♗xb5 ♔e8 29 ♗a4 ♔d8 30 h4! 1-0.

The final position is a nice zugzwang.



It is not hard to see that Black has no useful move. After he runs out of pawn moves he will have to move a piece (say ... ♕e8) and then b5 will settle matters.

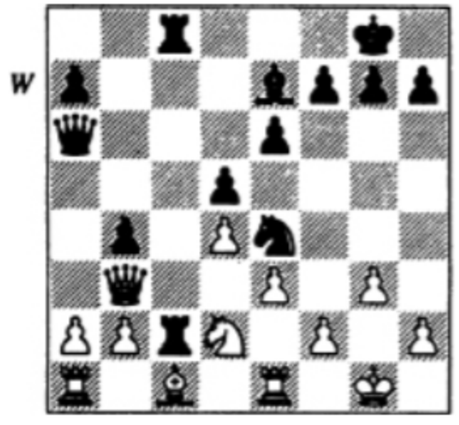
When enemy rooks have penetrated to the back two ranks they usually cause considerable damage, but even when they

do not win material, their presence can still be decisive. Thus in the following example the mere presence of a black rook at c2 disorganised the opponent and caused so much trouble that White was only able to put up symbolic resistance. The complete game (Ståhlberg-Taimanov, Candidates' Tournament, Zurich 1953) is a fine example of modern methods of exploiting opening advantages, including open lines.

After 1 d4 ♘f6 2 c4 e6 3 ♘f3 b6 4 g3 Taimanov surprised his opponent by 4...♗a6. The game continued 5 ♕a4 ♗e7 6 ♗g2 0-0 7 ♘c3 c6 8 ♘e5 (this lets Black take the initiative; 8 ♗f4! is better) 8...♕e8 9 0-0 d5 10 ♖e1 b5! 11 cxb5 cxb5 12 ♕d1 b4 13 ♘b1 ♘c6 14 ♘xc6 ♕xc6 (Black already has a head-start in the race to occupy the c-file. Taimanov's next few moves are directed towards the one clear strategic aim of strengthening his control of this important open file — the only one on the whole board) 15 ♘d2 ♕b6 16 e3 ♖ac8 17 ♗f1 ♖c6 18 ♗xa6 ♕xa6 19 ♘f3 ♖fc8 20 ♕b3 ♘e4 21 ♘d2 ♖c2! (*D*)

The rook is not going to go on the rampage from here, capturing material to left and right, but its hypnotic glance will spread confusion in the enemy ranks. White's forces will have to stand passively by as the rook induces a slow paralysis.

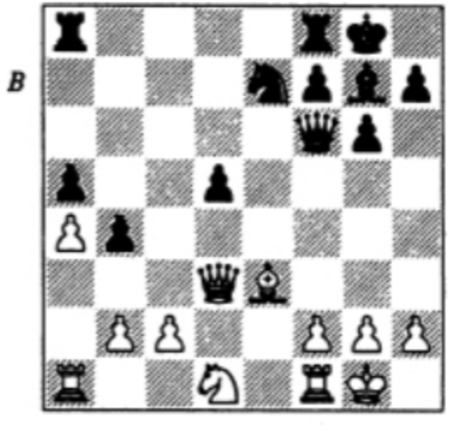
22 ♘xe4 (last move, Black could have won two minor pieces for a rook by 21...♖xc1 and 22...♘xd2, but decided that he could get more by the occupation of the seventh rank. Ståhlberg's nerves give way and he decides to remove the dangerous knight) 22...dxe4 23 a3 h5 (now he comes in with a kingside attack. Taimanov plays with great power in this game) 24 d5 ♖8c4 25 ♖d1 exd5 26 ♗d2 ♕f6 27 ♖ab1 h4 28 ♕a4 ♕f5 29 ♕xa7 ♗f8.



This lets White exchange queens and so prolong the game, whereas 29...♖g5 would allow Black to decide matters by a direct attack on the king. There's no accounting for tastes, and in the ending the Leningrad grandmaster quietly realised his advantage and forced resignation on move 42.

In the examples given so far, the open lines have been used to transfer pieces into key positions inside the enemy camp. It is easy to understand the importance of an open line in the attack on a weak pawn which comes under direct bombardment. The following position is a classical example.

This comes from Tarrasch-Alekhine, Karlsbad 1923. The white c-pawn is backward and is exposed to pressure by Black's rooks along the c-file. With a few strong moves Alekhine first of all ties the pawn down and then plays some crushing blows to win it.



The game continued 18...d4 19 ♗d2 ♖ac8 20 ♖e1 ♖c7 21 b3 (Tarrasch is hoping to block the file by transferring his knight to the outpost on c4, but Alekhine doesn't give him the chance!) 21...♖fc8 22 ♖c1 ♕f5! 23 ♖e4 ♘d5 24 ♘b2 ♘c3 25 ♗xc3 ♖xc3 26 ♕e2 ♗h6! (now White's defending rook is driven away) 27 g4 ♕f6 28 ♖e8+ ♖xe8 29 ♕xe8+ ♔g7 30 ♖f1 ♖xc2 (the vulnerable pawn was not able to hold out very long against the intense pressure. The realisation of Black's advantage involves a few difficulties, but Alekhine overcomes them very skilfully) 31 ♘d3 ♕f3 32 ♘e5 ♕d5 33 ♘d7 ♕d6 34 ♖d1 ♗e3! and Black's active pieces dominated the entire board.

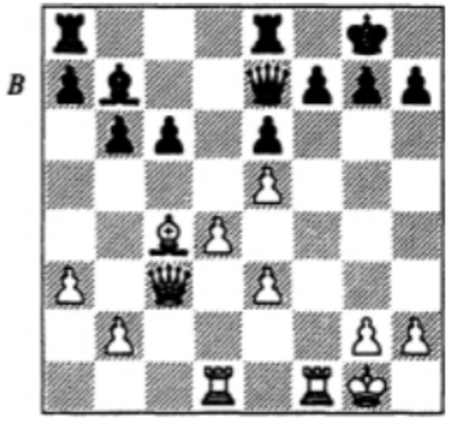
Modern Ideas on Open Lines

Open lines have always been, and will continue to be, appreciated. Even the inventive hypermoderns who brought about a reassessment in many of the then prevailing ideas had nothing to add. Still, modern chess thought has a slightly different understanding of the role of open lines compared to that of the past and one has to be aware of this.

First of all, modern specialists say that one must not overestimate the possession of an open line. By itself it has no significance and acquires significance only if it can be used for some strategic purpose. One can quote dozens of games in which one side had undisputed control of an open line but could achieve nothing with it. Either the entry squares were too well guarded by the defending side, or there was nothing to attack from an entry square as the enemy had no men located in the vicinity, so that there was no point in playing a rook along the line.

One must have a creative approach to the question of controlling an open line or diagonal, and know how to combine the general action of one's pieces with this specific factor.

At the beginning of this part of the book we quoted cases where the control of a single open file was enough to win. In the next example (Keres-Ståhlberg, Candidates' Tournament, Zurich 1953) only one of three open lines has any significance, as there is an object of attack located on it — a black pawn.



After Black's 16...c5 another line is opened — the c-file. Black will be able to control the two adjacent c-and d-files. However, there is nothing to attack along them and it is hard to force an entry either way. That is why these files play little part in the following complications.

At the same time White controls the f-file, but what a difference compared to the c- and d- files! White's rook attacks the f-pawn — and quite near to that is the black king.

If White's major pieces could swing a little to the right then it would be curtains for the black king!

No wonder then that in any comparison of their value the f-file wins easily over the c- and d- files.

17 ♕e1 ♗e4 18 ♖f4 ♗g6 19 h4 cxd4 20 exd4 ♖ac8 21 ♕e2 ♖c7 22 ♖df1 h5 23 ♖1f3 ♖ec8 24 ♗d3 ♗xd3 25 ♖xd3 g6 (White has all the play, while there is no point in Black's rooks entering at c1 or c2) 26 ♖g3 ♔h7 27 ♖g5 ♕f8 28 ♕e4 ♕h6 29 d5 (this gives Black hopes of saving the game; 29 ♕f6 with a complete blockade of the kingside was more energetic) 29...exd5 30 ♕xd5 ♕f8 31 e6 ♕c5+ (Black takes fright with no real justification; instead 31...f5 would leave him with chances of a draw, whereas now he has a lost ending) 32 ♕xc5 bxc5 33 exf7 ♔g7 34 ♕f8+ ♖xf8 35 ♖xf8 ♔xf8 36 ♖xg6 c4 37 ♖g5 ♖b7 38 ♖xh5 ♖xb2 39 ♖c5 ♖c2 40 ♔h2 ♔e7 41 h5 c3 42 ♖c6 1-0.

We have seen that modern chess science attaches a value to open lines that corresponds with their influence on the course of the game. At the same time the grandmasters of our day have learned how to exploit open lines as very important factors. In drawing up a strategic plan, modern grandmasters take account of what relevance this or that open line or diagonal will have in their plan.

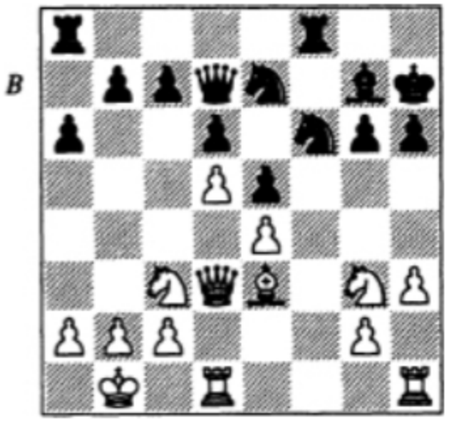
Modern games start straight away with bitter fights for the control of a line or diagonal. Theoreticians the world over are developing modern opening systems whose purpose is line control. Open lines are being promoted to pride of place as almost decisive factors in many hotly disputed opening lines.

For example, in the King's Indian Black's fianchettoed bishop often strikes the decisive blow. How many games have been won thanks to the power of this bishop! Examine

the games of the classic exponents of this defence, Geller, Boleslavsky and Bronstein, and you will find examples of wonderful manoeuvring whose aim is to exploit the power of the bishop along the long dark diagonal.

A concrete solution to Black's strategic aims in this opening often causes him to block the h8-a1 diagonal with his own pawns. The bishop dozes for a while, but even then the desire to open the diagonal, or otherwise mobilise the bishop, remains strong. Considerable efforts will be made to activate the bishop by inventive players, as once it is in play this long-ranging piece may well decide the game.

I managed myself to play a game on this theme. The play that follows the diagram seems to me a good example of the bishop-freeing motive dominating all Black's plans.



This is Neishtadt-Kotov, 26th USSR Championship Semi-Final 1956. The bishop is badly shut in by its own pawns and to free it seems a mere day-dream. However, Black is not content to day-dream and draws up a plan to make the bishop more mobile. The plan consists of these stages:

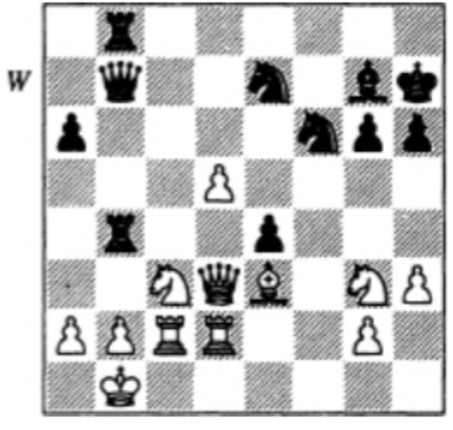
1) By advancing his b-pawn Black will drive away the knight that defends the central squares d5 and e4 (we speak of squares and not pawns on those squares, as in carrying out

the plan the important point is the function of a square and not whether it is occupied).

2) By ...c6 to exchange White's d-pawn and so open the d-file.

3) To remove the white e-pawn by ...d5, which will enable Black's e-pawn to advance and so liberate the bishop.

The game continued 19...b5 20 ♘f1 b4 21 ♘e2 c6! (beginning the second stage; 22 dxc6 is bad for White as the queen recaptures, attacking the e-pawn which is difficult to defend, while the line 22 dxc6 ♕xc6 23 ♕xd6 ♕xd6 24 ♖xd6 ♘xe4 25 ♖d7 ♘f5 leaves Black with a clear advantage) 22 c4 bxc3 23 dxc6 ♕xc6 24 ♘xc3 ♖ab8! (Black's forces are gathering menacingly; the attack on b2 will be particularly formidable once the bishop's diagonal is opened, while the pin on the b-file makes ♕xd6 impossible — the white knight at c3 would be lost) 25 ♘g3 ♖b4 26 ♖d2 ♖fb8 27 ♖c1 ♕b7 (trebling major pieces on an open file is always a strong stratagem; White hurries to defend his b-pawn) 28 ♖cc2 d5 29 exd5 (equivalent to capitulation; the stubborn way to defend was 29 ♗c5) 29...e4! (the dream has come true! The bishop now has an open diagonal and all Black's pieces cooperate in an attack on b2)



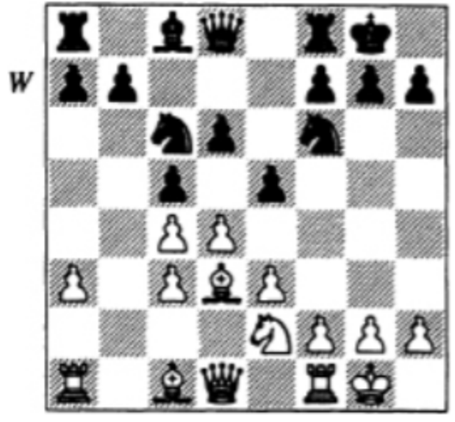
30 ♕e2 ♘exd5 31 ♘d1 ♘d7 (another piece hurries to the scene of the main action; White cannot stand the tension as the prospect of a fourth attacker of his b-pawn looms large, so he decides to go in for a forcing line) 32 ♖c4 ♖xc4 33 ♕xc4 ♘xe3 34 ♘xe3 ♗xb2 35 ♕b3 ♗g7 36 ♖xd7 (this is easily refuted but White's game was already hopeless; after 36 ♕xb7 ♖xb7+ the ending is a win for Black without too much difficulty) 36...♕xd7 37 ♕xb8 ♕d3+ 38 ♔c1 (38 ♘c2 ♕d1 #) 38...♕xe3+ 0-1.

If in the King's Indian it is a question of Black trying to make his dark-squared bishop mobile, then in the Nimzo-Indian Defence there is the similar problem for White of making his c1-bishop active from the b2-square. The student of the game will find it very useful to know all the various transformations which can take place in the role of this bishop, and keeping them in mind can try them in his own games. I have often found it possible in my games to use this bishop for attacking purposes.

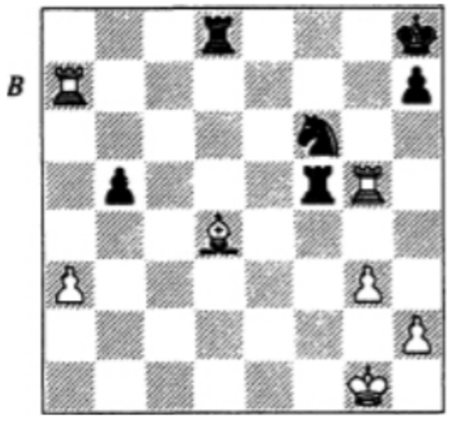
When in the Nimzo-Indian White forces his opponent to exchange his b4-bishop by a3, Black does not mind making this exchange. What has he to fear? The long dark-square diagonal a1-h8, along which White's dark-squared bishop would like to become active is firmly closed by the white pawns at c3 and d4. However, in the further course of the game White often has a chance to exchange these pawns or push them forward, in which case that same bishop can easily play a decisive role.

In the next game the bishop did not strike the decisive blow but merely stood on the long diagonal, but what fine support it gave to the white rooks! Look after a bishop like that and you will easily get an attack going!

This is Kotov-Lisitsyn, 13th USSR Championship Semi-Final 1944. The white bishop at c1 looks a pitiable thing, but just watch what a change takes place within a few moves!



10 e4 cxd4 11 cxd4 ♘d7 12 ♗b2 (the heavy armour has now been brought into position) 12...b6 13 f4 ♗b7 14 ♖c1 ♖c8 15 ♖f3 ♘xd4 (this is a serious error of judgement; the action of the b2-bishop was very much to be feared and Black should have done all he could to limit it — the simplest way was to play 15...f6) 16 ♘xd4 exd4 17 ♗b1? (White too goes wrong; the right move was 17 ♖g3 with growing pressure on the kingside) 17...f5! 18 ♕xd4 ♘f6 19 ♖e1 fxe4 (both players failed to notice that Black could win a pawn by 19... ♕e7!) 20 ♗xe4 ♗xe4 21 ♖xe4 ♕c7 22 ♖g3 ♕c5 23 ♕xc5 ♖xc5 24 ♖e7 (now the rooks are fearfully active because of the support of the bishop; the attempt to exchange the rook on the seventh rank by 24...♖f7 fails to 25 ♗xf6) 24...g6 25 ♖d3 ♖xc4 26 ♖xd6 ♖xf4 27 g3 ♖f5 28 ♖xa7 b5 29 ♗d4 g5 (Black has a very difficult game; White's bishop dominates the whole board and brings Black's pieces into a state of confusion, for example if instead 29...♖f7 then 30 ♖a8+ ♔g7 31 g4 ♖f4 32 g5 ♖g4+ 33 ♔h1 ♖xg5 34 ♖xf6 ♖xf6 35 ♖a7+ and wins) 30 ♖e6! g4 31 ♖ee7 ♖c8 32 ♖g7+ ♔h8 33 ♖xg4 ♖d8 34 ♖g5!.

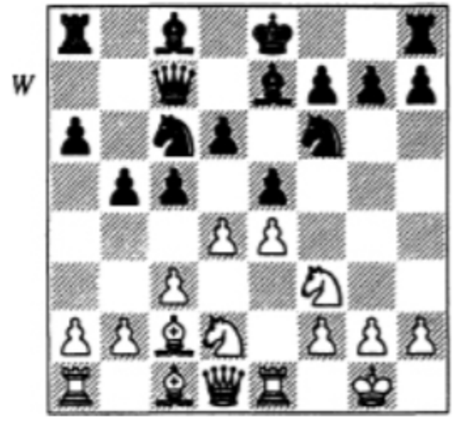


Complete victory for the bishop. The final catastrophe for Black arrived on the long diagonal.

These examples show the importance of controlling a diagonal. In each case it was the long dark diagonal, but shorter diagonals may be just as important. The student will easily find games where the attack came on the b1/h7 diagonal, and others where the c1-bishop was sacrificed on h6, and so on.

The diagonal which is important in a given position can be decided only by reference to the features of that position. Many opening systems invented in recent years are directed towards the seizure of important files and diagonals. The inventive authors of these systems have found ways to open vital lines, seize control of them with their pieces and so gain a decisive advantage, which they then exploit to force a win. Perhaps the most impressive example of this is the system devised by Rauzer for White in the Ruy Lopez.

In his game against Riumin from the Young Masters' Tournament, Leningrad 1936 there occurred the Chigorin Variation of the Spanish Opening: 1 e4 e5 2 ♘f3 ♘c6 3 ♗b5 a6 4 ♗a4 ♘f6 5 0-0 ♗e7 6 ♖e1 b5 7 ♗b3 d6 8 c3 ♘a5 9 ♗c2 c5 10 d4 ♕c7 11 ♘bd2 ♘c6



Now White took the first steps towards control of the a-file and the h1-a8 diagonal.

12 a4 ♖b8 13 axb5 axb5 14 dxc5 dxc5 15 ♘f1 ♗e6 16 ♘e3 0-0 17 ♘g5 ♖fd8 18 ♕f3 ♖d6 19 ♘f5! ♗xf5 20 exf5! h6 21 ♘e4 ♘xe4 22 ♗xe4 ♗f6

White's queen and light-squared bishop cut the whole board in two, along the above-mentioned diagonal. Among the important watching briefs of the two pieces is the prevention of a black challenge on the a-file, as a8 is firmly controlled. Finally Rauzer also takes control of the diagonal g1-a7 and thus reduces Black's pieces to impotence.

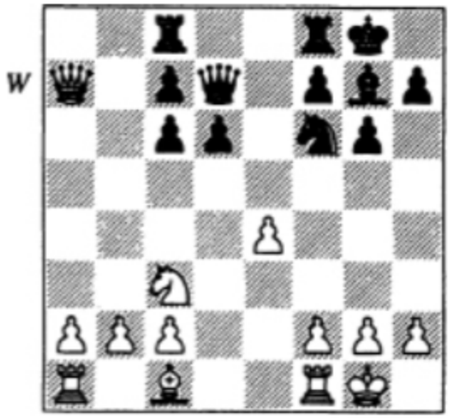
23 ♗e3 ♘e7 24 b4 c4 25 g3 Now that Black's pieces are huddled together in a heap, White prepares a strong kingside attack.

25...♖d7 26 ♖a7 ♕d8 27 ♖xd7 ♕xd7 28 h4 ♔h8 29 g4 ♘g8 30 g5 ♗e7 31 ♖d1 ♕c7 32 f6 ♗xf6 33 gxf6 ♘xf6 34 ♗c2 ♖d8 35 ♗xh6 ♖xd1+ 36 ♗xd1 e4 37 ♗f4 ♕d8 38 ♕e2 1-0.

A real rout. With good reason theoreticians the world over spent a great deal of time and effort trying to find a way for Black to avoid such an early concession of important lines. Note by the way that Black too has an open line — the d-file — but what could he do with it? There are lines and there are lines, a point one must never forget.

It was realised long ago that, for the sake of positional pressure on open lines supported by the action of a long-ranging bishop, it was possible without any real risk to give up a pawn. In such cases the material deficit is hardly felt and it is the player who is the pawn up who has to think about how to save his game. An example of this was provided as long ago as 1914 by Capablanca in his game with Nimzowitsch in the St Petersburg Grandmaster Tournament.

White is a pawn up, but it has no real significance. Black's rooks will soon occupy the a-and b-files and his bishop cuts the board in half. With just a few moves Capablanca not only forces Nimzowitsch into a completely hopeless position, but literally demolishes the apparently safe position of White's queenside pieces.



14 ♕a6 ♖fe8 15 ♕d3 ♕e6 16 f3 ♘d7! 17 ♗d2 ♘e5 18 ♕e2 ♘c4 19 ♖ab1 ♖a8 20 a4 ♘xd2 21 ♕xd2 ♕c4 22 ♖fd1 ♖eb8 23 ♕e3 ♖b4

Capablanca is not prepared to exchange his positional pressure for a measly pawn. His aim is to destroy the enemy's queenside completely.

24 ♕g5 ♗d4+ 25 ♔h1 ♖ab8 26 ♖xd4

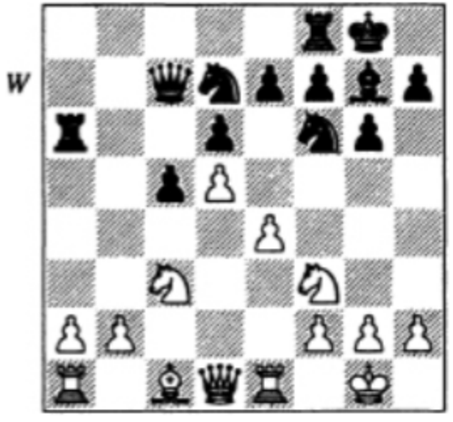
There was no longer any defence against the threat of ... ♗xc3, so Nimzowitsch gave up the exchange. Capablanca

thereafter won very easily, all the more so since his pieces were still occupying dominating positions.

Such games have not escaped the attention of modern theorists, who have devised a number of variations in which a pawn is sacrificed for positional pressure along open lines. We advise the reader to note examples of this as he goes through contemporary tournament books. If one masters the technique of such pawn sacrifices in the opening, one can derive great benefit from it. Thus, for example, Gligorić has won many games with the variation that occurred in the next game.

Taimanov-Bronstein, Candidates' Tournament, Zurich 1953.

1 d4 ♘f6 2 c4 c5 3 d5 g6 4 ♘c3 d6 5 e4 b5 6 cxb5 ♗g7 7 ♘f3 0-0 8 ♗e2 a6 9 bxa6 ♗xa6 10 0-0 ♕c7 11 ♗e1 ♘bd7 12 ♗xa6 ♖xa6



These moves do not need any explanation. Black has sacrificed a pawn to get pressure on the open a-and b- files. It is very reminiscent of the previous example. Following the example of Gligorić, such sacrifices have become a regular occurrence in modern master play.

13 ♕e2 ♖fa8 14 h3 ♘b6 15 ♗g5 ♘e8 16 ♗d2 ♘a4 17 ♘xa4 ♖xa4 18 ♗c3 ♗xc3 19 bxc3 ♕a5

Bronstein takes the simplest line; in the ending that results from the fall of the a-pawn, his rooks will be more active than White's — a factor that gives him clear winning chances.

White avoids simplification for a little while.

20 ♕d3 ♕a6 21 ♕d2 ♖xa2 22 ♖xa2 ♕xa2 23 e5 ♕xd2 24 ♘xd2 dxe5 25 ♖xe5 ♔f8! 26 ♘b3 c4 27 ♘c5 ♖a1+ 28 ♔h2 ♘f6!

Now that White's threats have been repulsed, Black's active rook becomes very dangerous along the back two ranks. All this resulted from the early pawn sacrifice which opened lines for the black rooks on the queenside.

29 ♘e4 ♘d7 30 ♖g5 ♖a2 31 ♖g4 f5 32 ♖f4 ♘b6 33 ♘g5 ♘xd5 34 ♖d4 ♘b6 35 ♖d8+ ♔g7 36 f4 h6 37 ♘e6+ ♔f7 38 ♘d4 ♘a4 39 ♖c8 ♘xc3 40 ♖xc4 ♘d5 41 ♘f3 ♖xg2+ 42 ♔h1 ♖f2 0-1.

Pawn Structure and Weak Squares

Weak Squares

Let us settle on a few definitions to start with.

Theoreticians from the time of Philidor, who stated 'Pawns are the soul of chess,' have suggested a variety of technical terms and concepts. Tarrasch once declared. 'I am not concerned about my pawn position as long as my pieces are well placed.' Nimzowitsch introduced a unique set of teachings on pawn chains in his book *My System*, but few of his terms have been widely adopted and nowadays there is not so much talk about the need to attack a pawn chain at its base. Nor have modern players concurred with his view that pawn chains are a subject to which a lot of attention should be devoted.

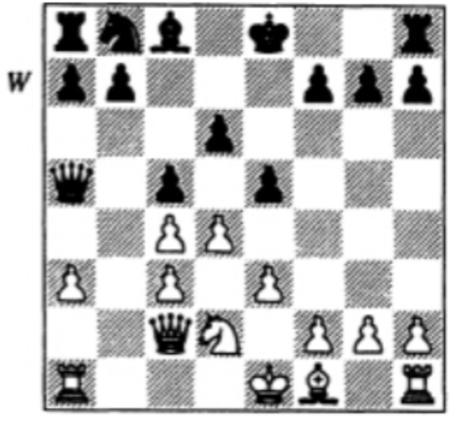
One other point is that an isolated pawn will remain isolated, no matter how we defend it with pieces. The weakness of pawns and squares is a direct result of the pawn structure and does not depend on piece configuration. That is why we deal with weak squares and pawn structure together as the former depends directly on the latter.

When a grandmaster is assessing a position, he is bound to take note of the weak squares and pawns in his own position and in the opponent's. The presence of such weaknesses is never a positive feature, but one has to be able to assess to what an extent they are a handicap to one's overall position.

In some cases, a single weak pawn or square can be the reason for the loss of the game. Probably the best proof of this is afforded by certain games of Botvinnik, who has shown on a number of occasions how to exploit the strength of a single piece located on an enemy weak square.

A classic example of this is Botvinnik-Kan, 11th USSR Championship 1939, which has been quoted in many books.

Botvinnik spotted the serious weakness of the central square d5 and based all his subsequent play on this. As the game is so well-known we do not treat the play in great detail. First of all Botvinnik occupies d5 with his bishop.



11 dxe5 dxe5 12 ♗d3 h6 13 0-0 0-0 14 f4 ♘d7 15 f5 ♘f6 16 ♘e4! ♕d8 17 ♘xf6+ ♕xf6 18 ♗e4 ♖b8 19 ♖ad1 b6 20 h3 ♗a6! 21 ♗d5 b5 22 cxb5 ♖xb5 23 c4

The bishop is now firmly supported on the weak square. In what follows White's pieces develop great pressure on the enemy position due to the strength of the bishop.

23...♕b6 24 ♕b1 ♕d8 25 ♕xb6 axb6 26 e4 ♗c8 27 ♕a4 ♗d7 28 ♕a7 ♗e8 29 ♖b1 ♖d6 30 a4

This wins a pawn.

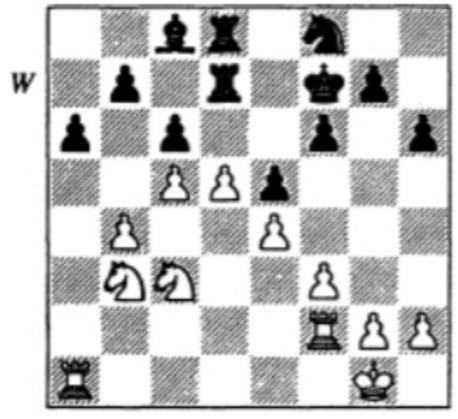
30...♔h7 31 a5 bxa5 32 ♕xa5 ♖a6 33 ♕xc5.

Botvinnik then proceeded to repel some counter-play by Black and went on to win with his extra pawn.

One could quote other examples of a win being created out of what looked at first sight to be the slight advantage of occupying a single weak square in the enemy camp. See, for instance, Botvinnik-Sorokin, 7th USSR Ch 1931, and also his games with Panov in the Final and Chekhover in the Semi-Final of the 11th USSR Ch 1939. In all these games White won a decisive advantage by exploiting the d5-square for his pieces.

However, such games, won on the basis of one weakness, are comparatively rare, and normally the exploitation of a weak square must go hand-in-hand with the exploitation of other advantages. Often an opponent suffers from two weak squares and then the method of play is comparatively easy. One tries to occupy such weak squares with one's own pieces, which thereby have a permanent base for operations. Such outposts are particularly suitable for knights.

Of the examples of such play with which I am familiar, I was particularly impressed by the ending of the game Romanovsky-Smorodsky, 3rd USSR Ch 1924.



White's pawns cramp the opponent, who also suffers from weak squares at d6 and b6 and subsidiary weaknesses at a5 and f5. White plays energetically with his knights using all these squares.

1 ♘a5 ♖c7 2 ♖d1 h5 3 ♖fd2 ♖cd7 4 ♘a4 ♔e8 5 ♘b6 ♖c7 6 ♘ac4 ♗d7 7 ♘d6+ ♔e7

White's knights are making themselves at home in the enemy rear; the b6- and d6-squares are natural points for them to occupy.

8 ♘b5! ♖cc8 9 ♘xc8+ ♖xc8 10 ♘d6 ♖b8 11 ♘c4 g5 12 ♘b6 ♗e8 13 d6+ ♔d8 14 d7 ♗f7 15 ♖d6

The rook too occupies the weak square d6. If you create such weaknesses in your position, you must watch out for unpleasant visitors!

15... ♗b3 16 ♖1d2 ♘h7 17 ♘c8 h4 18 ♘a7!

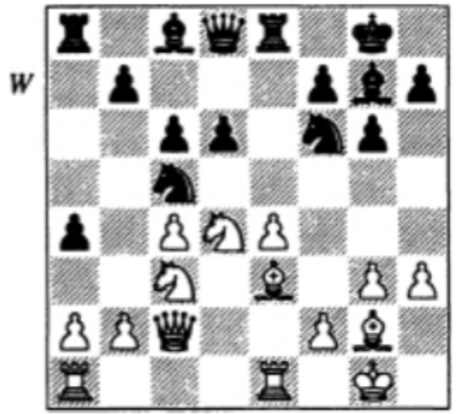
The knights have a field day in this game. Black resigned because there is no defence to the threat of 19 ♖xc6.

So far we have been discussing weak squares. No less clear is the concept of weak pawns. How often have we had to suffer from being the unhappy possessor of them! How many weak pawns have fallen to the attacker! There are other possibilities, however. The defender manages to guard his weaknesses and the swooping pieces of the attacker have

to admit defeat as they come up against a granite block. Or one side finds it pointless or else impossible to defend his weak pawns, but manages to exchange them for the weak pawns of his opponent. Finally, weak pawns may be sacrificed, like ballast thrown over board.

All these cases may be seen when studying master games. I merely want to point out that modern strategy has enriched and modified the concept of weak squares and weak pawns by comparison with Steinitz's ideas on the subject. The founder of positional methods of play often worked on a static assessment of weaknesses, whereas today the dynamics of a position, its hidden potential energy, have more influence on the overall assessment. We said that there has been little change over the decades in views on the significance of open lines, but there have been significant changes in the way we look at weaknesses.

For example let us examine a position that the reader may well have come across in his own games.



Here is what Bronstein wrote about the weakness of the d-pawn in this variation: 'Here it seems high time to reveal to the reader the secret of Black's d-pawn in the King's Indian. Although the pawn stands on an open file and is subject to constant pressure, it proves to be a tough nut to crack. This is because it is not easy to get at the pawn. It would appear that

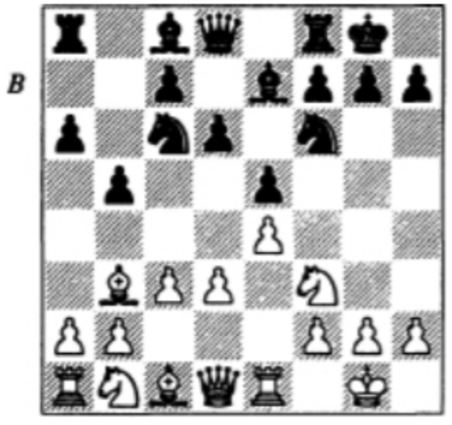
there is nothing simpler than to move the knight away from d4 so as to press on the pawn, but the point is that the knight is badly needed at d4, where it has the task of observing the squares b5, c6, e6 and f5, as well as neutralising Black's fianchettoed bishop. The knight can really only move away when White has safeguarded himself from such attacks as ... a3, ... ♗e6 and ...f5 by Black. Meanwhile, however, Black has also fully organised his position.

'Hence the weakness of the black d-pawn is illusory.

'Modern methods of playing the opening involve the creation of such weaknesses, whereas for many years the King's Indian was considered a dubious opening because of the "permanently weak" d-pawn.'

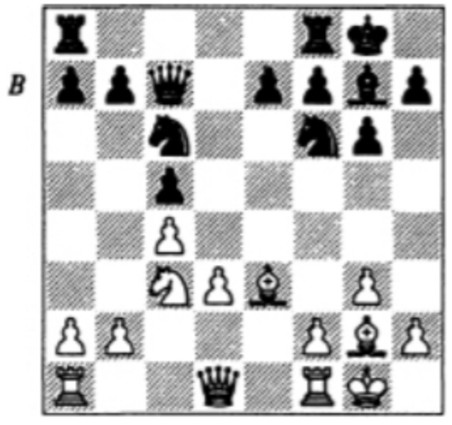
There is a deep dynamic assessment for you! One could mention many other similar 'dynamic weaknesses' arising from modern opening systems. Doesn't Boleslavsky's variation of the Sicilian Defence condemn Black to a permanent weakness in the form of his pawn at d6? We are prepared to leave this pawn not only backward but also isolated by answering White's f4 by ...exf4 merely in order to make use of the c5- and e5-squares in the fight for the initiative in the centre. In the Nimzo-Indian, how many times has each of us not put up with a backward pawn at e3, sometimes attacked by two rooks along the open e-file, merely in the hope of finally setting in motion our pawn mass c3, d4, e3, f3, which is held back by Black's pieces and his pawn at d5?

Here is another dynamic assessment of a weak pawn. Botvinnik is discussing the move 9 d3 in the Ruy Lopez:



'As White intends a kingside attack by the standard method of ♘bd2-f1, h3, g4 and ♘g3-f5, Black must naturally strike back with the central counter-blow ...d5. In that case White will exchange pawns in the centre and get pressure on Black's weak e-pawn. The white central pawn at d3, just as in the Sicilian Defence, is certainly not weak.'

In assessing the next position, which arose during the game Najdorf-Boleslavsky, Candidates' Tournament, Zurich 1953, Bronstein writes: 'Modern chess strategy has refined and widened many concepts. Nowadays a player, in deciding which move to play, does not work on the external appearance of the position, but on a concrete assessment of the various possibilities open to both sides. Thus here Black can occupy d4 with a knight, but he has to take account of the fact that then he has no real chance to strengthen his position any further, while White can get definite queenside threats by ♖b1, b4 and so on, in conjunction with the pressure exerted by his fianchettoed bishop. One of the most important factors is the immunity from attack of White's d3-pawn as Black's knight would shield it from pressure along the d-file. That is why Black, instead of the "strategic ...♘d4", prefers the combinative ...♖fd8 aiming at the white d-pawn.'

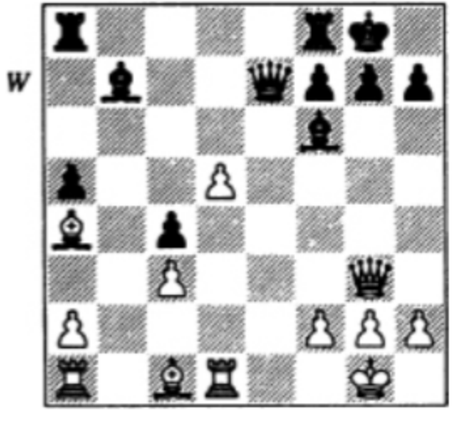


Hence, when assessing weaknesses, the new element introduced in modern times is the dynamic approach to this question.

Passed Pawns

The previous section dealt with the fairly straightforward question of weak pawns. Even though we can find certain positive features even in isolated and backward pawns, we still have no particular liking for such pawns. The word 'weak' speaks for itself. On the other hand, a pawn to be proud of is the passed pawn, especially if it is defended by our pieces and escorted by them to the eighth rank! This is the sort of pawn that everyone still wants to have.

Sometimes a passed pawn decides matters in a few moves. A very clear example of this is the finale of the Smyslov-Keres game, Candidates' Tournament, Zurich 1953.



White is a pawn up, but if White develops his c1-bishop along the c1-h6 diagonal Black can win back the pawn by ...♕a3. Hence Smyslov plays to make immediate use of his passed pawn and almost gets as far as queening it in only a few moves.

22 ♗f4! ♖fd8 (now it becomes clear that 22...♕a3 would be bad as White would reply 23 ♗c6 ♗xc6 24 dxc6 ♕xc3 25 ♕xc3 ♗xc3 26 ♖ac1 and then 27 ♖xc4 with a won ending) 23 d6 ♕e4 24 ♖e1 ♕f5 25 d7! (a rare occurrence in the middlegame — a pawn gets down to the seventh rank, yet is perfectly safe; White brings up his pieces, using the pawn as a focal point) 25...h5 26 ♖e8+ ♔h7 27 h4 ♖a6 28 ♗g5! (with an indirect attack on the blockading rook — 29 ♖xd8 is a threat — which would be lost after 28...♗xg5 29 ♕xg5; Keres is forced to give up the exchange, but this does not prolong resistance by very much) 28...♖xd7 29 ♗xd7 ♕xd7 30 ♖ae1 ♖d6 31 ♗xf6 ♖xf6 32 ♕b8 and White won quickly by an attack against the king.

Pawn Islands

Grandmaster Smyslov (remember he is conducting an experiment on our behalf), once he has taken account of the presence of strong and weak pawns, will then go on to assess the quality of the whole pawn configuration of each side. We have examined such factors as backward and isolated pawns and been delighted by protected pawns, especially when they are also passed. However, there are factors which take account of pawn formation as a whole, and often prove decisive in defining who has the advantage or can even count on a certain win.

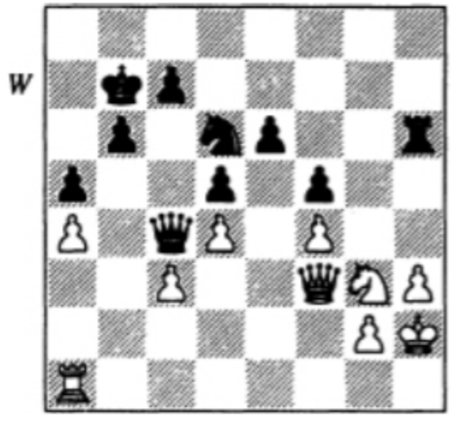
Once upon a time, supporters of the Steinitz-Tarrasch school had a very high opinion of a queenside pawn majority. If, for example, White had three sound pawns on the queenside opposed by only two black pawns then this was considered to be not far short of a clear win. Modern strategy, on the other hand, categorically denies that such a majority is an independent factor of any importance. It confidently states that it is an unwarranted assumption to claim that a wing pawn majority is an advantage in itself, independent of the piece configuration.

Practical play has increasingly confirmed the new assessment and attention has been given instead to the concept of 'Pawn Islands'. Let us examine this.

If you have almost all your pawns linked in a single chain, whereas your opponent's pawns are split into several isolated detachments (or 'little islands' as Capablanca called them), then you have a real advantage whose benefits you will feel more and more as the game approaches the endgame stage. This apparently abstract concept has now assumed considerable importance in assessing positions.

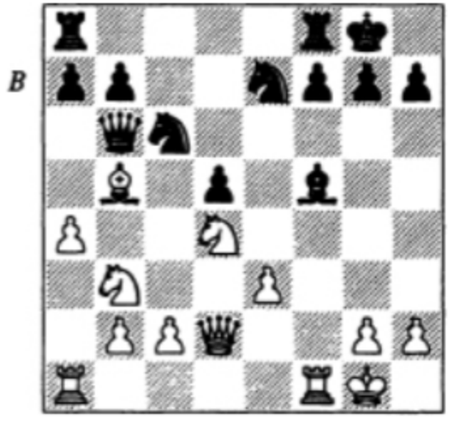
Here is an example. In assessing this position from Gligorić-Keres, Zurich Candidates' 1953, Bronstein writes: 'Black's advantage is of a permanent nature and resides not so much in greater piece mobility as in a superior pawn formation:

1) All Black's pawns are linked together, whereas White's are weakened by being separated into three parts.



2) Black's d-pawn and f-pawn secure a powerful knight outpost at e4. If White exchanges knights on this square then Black gets a protected passed pawn.'

Keres went on to exploit his advantage, without needing to make much use of his pawns, as his three pieces co-operated in a powerful attack on the white king. However, the pawn formation did play an important part in this, because Gligorić avoided exchanges which would have resulted in an unfavourable ending for him, and thereby gave his opponent the chance to attack with his pieces.



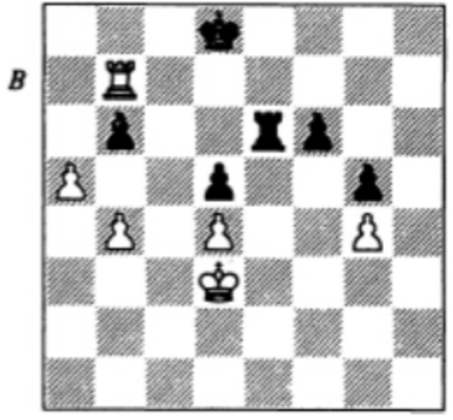
In assessing the knight exchange 14...♘xd4 which took place in this position (from the game Botvinnik-Boleslavsky, Match-Tournament for the title of Absolute Soviet Champion, 1941), Botvinnik wrote: 'A positional mistake which increases White's advantage. White gets two pawn

islands (Capablanca's phrase) and Black three, while the black d-pawn can easily become weak.'

Examine carefully how in all the subsequent play the island at d5 limits his choice of moves. In the end Black could not save the pawn, though it actually fell much later, in an ending.

There now came: 15 exd4 ♖ac8 16 ♘c5 a6 17 ♖ae1 ♖c7 18 ♗d3 ♗xd3 19 ♕xd3 ♕d6 20 c3 a5 21 ♕f3 ♘g6 22 ♖e3 b6 23 ♘d3 ♖d7 24 ♘fe1 ♕c6 (White has a definite positional advantage as Black's pawns at b6 and d5 are weak; with his next move Botvinnik starts an operation to gain control of the e7-square for which purpose he must drive away Black's knight) 25 g3 ♖d6 26 h4 f6 27 ♕f5 ♕c8 28 ♕xc8 ♖xc8 29 h5 ♘f8 30 ♖e7 ♖cd8 31 ♘f4 ♖8d7 32 g4 ♖xe7 33 ♖xe7 g5 34 hxg6 (in the rook ending the win is harder than with knights on, so White should have avoided the knight exchange) 34...♘xg6 35 ♘xg6 hxg6 36 ♖b7 ♔f8 37 ♔f2 ♔e8 38 ♔e3 g5 39 ♔d3 ♖e6 40 b4! axb4 41 cxb4 ♔d8 42 a5!.

Here finally the pawn island on d5 proves a telling weakness. If now 42...bxa5 43 bxa5 ♔c8 then after the moves 44 ♖b5 ♖d6 45 ♔c3 ♔c7 46 ♔b4 Black cannot both hold on to the d-pawn and prevent the entry of the white king.



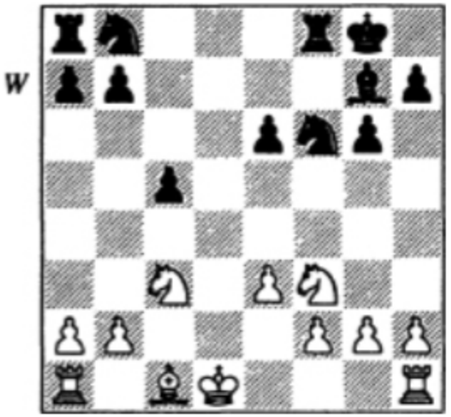
42...♔c8 43 a6 b5 44 ♖xb5 ♖xa6 45 ♖xd5 At last! 45...♖a1 46 ♖c5+ ♔b7 47 d5 ♖f1 48 ♖c4 f5 49 ♔e2 1-0

The fifth game from the Petrosian-Botvinnik World Championship Match 1963 provides a superb example of how to exploit various pawn islands in the enemy position.

1 c4 g6 2 d4 ♘f6 3 ♘c3 d5 4 ♘f3 ♗g7 5 e3 0-0 6 ♗e2 dxc4 7 ♗xc4 c5 8 d5 e6 9 dxe6 ♕xd1+ 10 ♔xd1 ♗xe6 11 ♗xe6 fxe6

Black has only one weak pawn, the one at e6. Petrosian revealed later that he had studied exactly this position in his pre-match training session. His opinion was that it is extremely favourable for White. 'There is no one hundred per cent guarantee, but the winning chances are very high.'

Such is the view of modern strategy on pawn islands, of which Black has three. Petrosian's further play supports his opinion, as by means of accurate play he proves a considerable advantage for White.



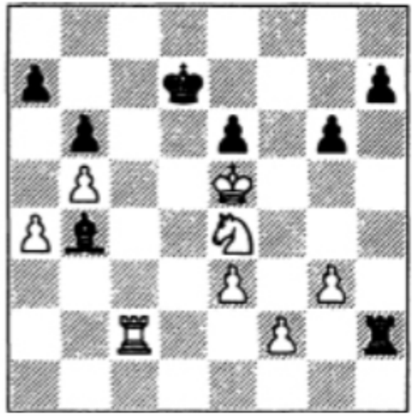
12 ♔e2 ♘c6 13 ♖d1 ♖ad8 14 ♖xd8 ♖xd8 15 ♘g5 ♖e8 16 ♘ge4 ♘xe4 17 ♘xe4 b6 18 ♖b1 ♘b4 19 ♗d2! ♘d5 (19...♘xa2 is clearly bad because of 20 ♖a1 ♘b4 21 ♗xb4 cxb4 22 ♖xa7) 20 a4 ♖c8 21 b3 ♗f8 22 ♖c1 ♗e7 23 b4! c4 24 b5 ♔f7 25 ♗c3! ♗a3 26 ♖c2 ♘xc3+ 27 ♖xc3 ♗b4 28 ♖c2 ♔e7 29 ♘d2 c3 (the rook ending after the exchange of minor pieces

is bad for Black as he is bound to lose his c-pawn; however, the white king now penetrates into the enemy position) 30 ♘e4 ♗a5 31 ♔d3 ♖d8+ 32 ♔c4 ♖d1 33 ♘xc3 ♖h1 34 ♘e4! ♖xh2 35 ♔d4 ♔d7 36 g3 ♗b4 37 ♔e5 (*D*)

The beginning of the end. His Majesty the white king takes upon himself the task of mopping up the enemy kingside pawns.

37...♖h5+ 38 ♔f6 ♗e7+ 39 ♔g7 e5 40 ♖c6 ♖h1 41 ♔f7! ♖a1 42 ♖e6 ♗d8 43 ♖d6+ ♔c8 44 ♔e8 ♗c7 45 ♖c6 ♖d1 46 ♘g5 ♖d8+ 47 ♔f7 ♖d7+ 48 ♔g8 1-0.

B



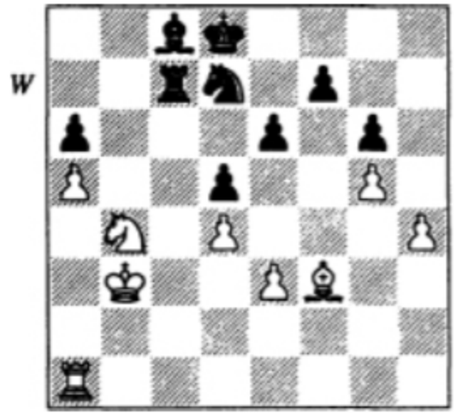
Weak Colour Complexes

As a result of the opening system chosen in a particular game, or because of subsequent operations, the pawns that are left on the board assume the most varied and strange patterns. We all know the characteristic shapes of the pawn configuration produced by the Dragon Variation of the Sicilian Defence and the long pawn chains that are characteristic of the French Defence. Normally it is the opening which determines the pawn formation for a very long time ahead, which is why an experienced player can often tell what the opening was even when looking at the position many moves later, deep into the middlegame.

A player sometimes arranges his pawns so that they are all placed on the same coloured squares. Such a pawn chain has its positive features as the pawns all guard a colleague, but there is also an incurable fault — adjacent squares of the opposite colour are deprived of defence by the pawns and become accessible to the enemy pieces. This is particularly the case when there is also no bishop defending these squares. In such cases one speaks of light-squared weaknesses or dark-squared weaknesses.

Let us deal with this tricky question and start by repeating a conversation I had with an opponent. The incident may well help the reader to commit an important rule to memory.

My game against the Argentinian grandmaster Pilnik (Black) in the 1952 Stockholm Interzonal was adjourned in the following position:



'I offer a draw,' said the Argentinian. My reply was, 'I want to play on a bit yet', although I felt in my bones that I should win from this position. Pilnik then insisted, 'You have no advantage, except perhaps a bit more space. On the other hand my pawns are safely guarded.' I could not resist asking Pilnik, 'Guarded by what?' 'By my bishop', he replied, and I could not make up my mind whether he was serious or joking. Just in case, I decided not to spoil his illusions, lest he should suddenly find a way of rearranging his pawns.

From this conversation I concluded that the problem of how to place your pawns when you are left with a single bishop is far from clear, even for grandmasters. Yet there can be no doubt about it. Pawns which stand on the same colour as the bishop and so limit its mobility are a serious positional drawback, as pawns should help and not hinder the pieces.

When the game was resumed White soon made use of his advantage which consisted precisely of the position of the black pawns, 'safely defended by the bishop'.

Here is how I assessed the position at the adjournment: White has a considerable advantage, quite sufficient to win the game with accurate play.

His advantages are:

1) All the black pawns are on the colour of his bishop, restricting its mobility so much that, in effect, it can take no part in the game.

2) All White's pieces are mobile, while Black's are huddled together in a bunch on the two back rows.

3) Black has two weaknesses at a6 and f7, and by combining attacks on them White should be able to force win of material.

The correct plan is clear: after suitable preparation advance h5 and after ...gxh5 ♗xh5 pile up pressure against f7.

Correct assessment and the right plan enabled White to exploit his advantage and win.

42 ♗e2 ♘b8 43 ♘d3 ♔e7 44 ♘e5 ♘c6 45 ♔b2!

Intending to exchange knights and then oppose rooks by ♖c1 as the bishop ending is hopelessly lost for Black due to the hampering effect of his own pawns.

45...♖b7+ 46 ♔c3 ♔d6 47 ♘xc6 ♖c7 48 ♔b3 ♖xc6 49 ♖f1 ♖c7 50 h5 gxh5

Obviously he must not allow the pawn to advance to h6.

51 ♗xh5 ♖b7+ 52 ♔c3 ♖c7+ 53 ♔d2 ♖b7 54 ♖xf7

The pawn has fallen, and White has no great difficulties left. White won on the 73rd move.

So there should be no more doubt about it — never leave your pawns on the same coloured squares as your one remaining bishop (*Editor's note*: the one exception is as a drawing motif in opposite-coloured bishop endings).

The exploitation of a weakened colour complex in the vicinity of a fixed pawn formation is the *leitmotif* of many strategic plans. Here is an artistic example of play on

weakened light squares in the game Makogonov-Botvinnik, Sverdlovsk 1943.

1 d4 d5 2 c4 e6 3 ♘c3 c6 4 e3 ♘f6 5 ♘f3 ♘bd7 6 ♘e5 ♘xe5 7 dxe5 ♘d7 8 f4 ♗b4 9 cxd5? exd5 10 ♗d3 ♘c5 11 ♗c2 ♕h4+ 12 g3 ♕h3

White's position on the whole is satisfactory, but the one drawback is that his light squares on the kingside have been weakened. This will become especially noticeable when Black swaps light-squared bishops. The subsequent play between two inventive players of the highest class is very instructive, revealing how one uses such a weakness and how one tried to defend a position saddled with this drawback.

13 ♔f2! ♗xc3 14 bxc3 ♗f5! 15 ♗xf5 ♕xf5 16 g4!

Botvinnik praises his opponent here: 'Excellent play, as after this move the weakness of the light squares become less noticeable.'

We must add that White pays a high price for this repairing of his main weakness, as his king is deprived of any hope of finding a safe spot on the kingside and has to stand the buffets of being badly exposed.

16...♕e6 17 ♗a3! ♘e4+ 18 ♔f3 h5 19 h3 f6!

An excellent move. White cannot capture on f6 as his king would then really be far too exposed, but the only alternative would be to give up a pawn.

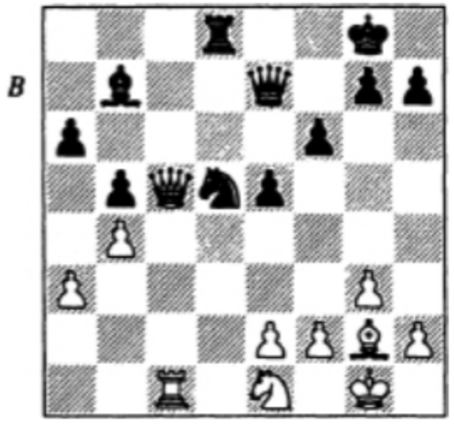
20 c4 hxg4+ 21 hxg4 ♖xh1 22 ♕xh1 0-0-0 23 ♖d1 fxe5 24 cxd5 cxd5 25 ♖c1+ ♔b8 and Black finally realised his positional and material advantage.

The fact that the question of weak squares is not a simple one will be realised from the following game. In introducing

the game Bronstein writes: 'When I read in chess books about the weakness of dark squares, or of an attack along the dark squares, I suspected for a long time that what was being discussed was something that was not clear either to me or the writers. Agreed, I mused to myself, my opponent has weak dark squares if his pawns are on light squares and he has no dark-squared bishop, but he could then remove all his pieces from the dark squares and what can I then attack?

'This was the way I thought until I suddenly realised that the weakness of dark squares is a weakness of light squares too. An attack along the dark squares involves putting my own pawns and pieces on dark squares and then attacking my opponent's men, all stationed on light squares, who have nowhere safe to hide from my pressure.'

Then follows this concrete example to back up his interesting statement.

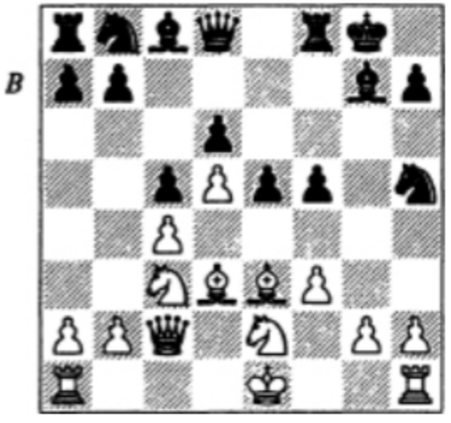


This is Szabo-Geller, Candidates' Tournament, Zurich 1953. White has just played 25 ♕d4-c5. Bronstein thinks the best way to exploit the dark squares on the queenside was 25 ♕a7. This was the move which in his opinion 'would take control of the dark squares, and attack the men located on adjacent light squares. The feasibility of the move lies in the elegant small combination 25...♖d7 26 ♕xb7! ♖xb7 27 ♗xd5+ followed by 28 ♖c8+ winning all Black's pieces, which curiously enough are all captured on light squares.'

Well, it is possible to look at it in this light, with one necessary proviso. He is speaking about situations in which the attacking pieces on dark squares are pieces other than a bishop. A bishop is the one piece which when located on squares of one colour cannot have any effect on squares of the opposite colour.

The weakness of the dark or light squares can become the decisive factor in a game. I had one awful experience based on this theme, when I could foresee that I was going to lose and could do nothing about it. My opponent dominated the dark squares over the whole board, while I had all my pieces uselessly placed on light. Not that this was my intention at all, but see for yourselves how it happened.

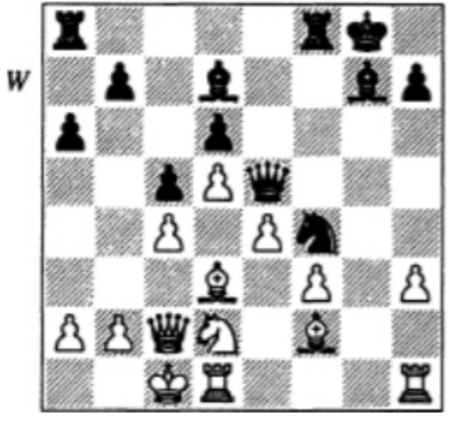
The position arose from a King's Indian Defence in which I played White against Gligorić in the 1953 Zurich Candidates' Tournament. There seemed nothing to indicate that I was going to be in trouble, when suddenly there came 11...e4! 12 fxe4 f4.



Naturally I knew of this manoeuvre, by which Black sacrifices a pawn so as to gain control of the square e5 and to open the long dark diagonal for his bishop. What of it, I thought, I can stand that and I have an extra pawn.

13 ♗f2 ♘d7 14 ♘g1 (everything subordinated to the fight for e5; 14 e5 ♘xe5 15 ♗xh7+ ♔h8 is worse as Black's pieces

become far too powerful) 14...♕g5 15 ♗f1 ♘e5 16 ♘f3 ♕e7 17 ♘xe5 ♕xe5 18 0-0-0 ♘f6 19 h3 ♗d7 (here I began a plan to try to dislodge the black queen from e5, when, so I hoped, e4-e5 would give me the initiative) 20 ♗d3! a6 21 ♘b1 (just two more moves, ♘d2-f3, and the queen will have to give way; unfortunately, a bitter disappointment awaited me) 21...f3!! (wonderful play; Gligorić gives up a second pawn merely to keep control of the dark squares in the centre — and how he does control them!) 22 gxf3 ♘h5 23 ♘d2 ♘f4



A pitiful position for White. His light-squared bishop is in effect turned into a pawn. His knight has been denied all the squares from where it could drive the black queen away. I was depressed and discouraged, but not yet ready to give in, so I decided to do all that I could to save the game.

Bronstein wrote later of this position that one had to marvel at the defensive potential it held for White, who managed by dint of immense effort to keep equality. 'By dint of immense effort,' yet White is two pawns up! That is what a weak colour complex can involve you in.

24 ♗f1 b5 25 h4 ♔h8 26 ♖g1 ♗f6 27 ♘b3 ♖ab8 28 ♗e1 b4 29 ♔b1 ♖a8 30 ♗g3 ♖g8 31 ♕h2 ♖xg3 32 ♖xg3 ♘e2! 33 ♕xe2 ♕xg3 34 ♘c1 a5 35 ♘d3 ♗d4 36 h5 ♕h4 37 ♗g2 ♖g8 38 ♖h1 ♕g3 39 ♗f1 a4 40 ♔c2 a3 (Editor's *note*: Bronstein points out that Black would have retained some winning chances after the sacrifice of a third pawn by 40...

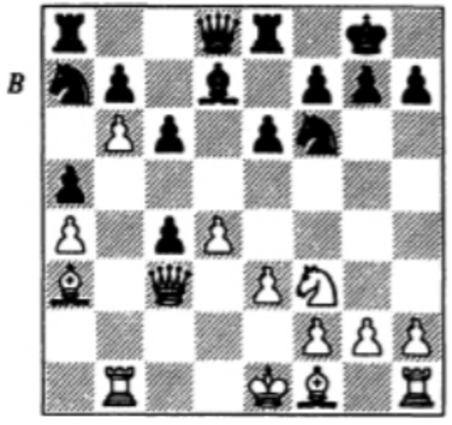
b3+!) 41 b3 and at this point the game was agreed drawn. Black cannot exploit the awful gaping holes that still exist on the dark squares. What a frightful example!

Such a colour-based weakness is a motif which dominates opening strategy in many modern games. Thus in the King's Indian Defence, and particularly in the Sämisch Variation, White closes the centre by d4-d5, after which Black's bishop at g7 is shut out of the game.

It is not always possible to free it as Gligorić did in the game we have just seen. Sometimes this bishop is exchanged by the tactical device of playing ...♗h6 and answering ♗xh6 by ...♕h4+ and then ...♕xh6. This manoeuvre eases Black's game and it is White who normally gets into difficulties as he has weakened the dark squares in his own camp, which becomes a telling factor when he has lost the services of his dark-squared bishop.

Another striking example is the Ragozin Defence. In the very first game in which it was played the author of the system was able to exploit his opponent's weakened light squares with a seductive simplicity.

After 1 d4 ♘f6 2 c4 e6 3 ♘c3 ♗b4 4 ♕c2 d5 5 e3 0-0 6 ♘f3 Ragozin played 6...♘c6. His opponent Riumin (the game was played in the 1934 USSR Championship in Leningrad) decided to gain space on the queenside and played 7 a3 ♗xc3+ 8 ♕xc3 ♗d7 9 b4. This was met by a series of energetic moves which revealed White's light-squared weak squares on the queenside: 9...a5 10 b5 ♘a7 11 a4 c6! 12 ♗a3 ♖e8 13 ♖b1 dxc4 14 b6



Despair. Other moves would lead to a decisive light-squared weakening, e. g. 14 ♗xc4 cxb5 15 axb5 ♖c8 16 ♕d3 ♘d5, or 14 ♕xc4 cxb5 15 axb5 ♖c8 16 ♕b3 ♘d5 and Black is in full control of the light squares.

Riumin wanted to transfer the game into tactical channels but he fails to achieve anything.

14...♘b5!

Revealing Ragozin's tactical aptitude. The sacrificed piece is soon won back, but White's light-squared weakness remains.

15 axb5 cxb5 16 ♘e5 b4 17 ♕c1 ♗b5! 18 ♗e2 ♖c8 19 ♗xb4 axb4 20 ♖xb4 ♗a6 and Black soon won.

The Position of the Pieces

A chess game is a battle of two armies. Admittedly the armies consist of pieces of wood, but for a real player, as Lasker wrote, these are living beings.

A chess player is a commander and the fate of the whole army depends on his ability, will-power and diligence. That is why the question of good or bad piece positions always plays a decisive role.

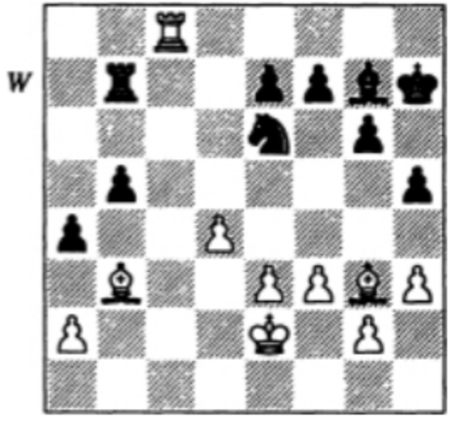
It might turn out, as is often the case, that through lack of foresight, inexperience or some other reason the army of one side or the other is mobilised, yet deployed so poorly that it can be written off as not battleworthy. In such a case catastrophe must ensue.

More often a single piece, or less frequently two, is badly placed and this leaves some hope of remedying the defect. It stands to reason that one badly placed piece can normally be rectified — normally, but not always, and in this case it might be the reason for defeat.

The exploitation of a badly positioned piece or pieces is a method often employed in our war games, which is why the player who wishes to improve must be able to discern such weaknesses in the enemy position. We shall deal with the question at length, especially since it is so hard to find clear guidance or systematic study of this topic in existing literature on the game.

The fact that a single badly placed piece can cause the loss of the game can be seen in a large number of games played both in this century and the last. Tarrasch coined the memorable phrase, 'If one piece stands badly, then the whole position is bad'.

Let us examine a case where a bishop is shut out in an unusual way, from the game Kotov-Kashdan, Radio Match, USSR-USA 1945.



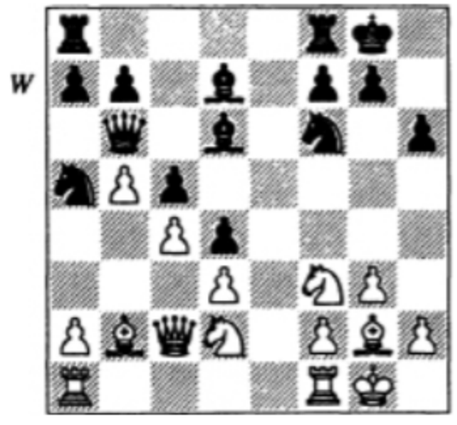
White has an undoubted advantage, but the following manoeuvre enables him to force an immediate win by shutting the enemy bishop out of the game: 34 ♗xe6 fxe6 35 ♖b8 ♖xb8 36 ♗xb8 b4 37 ♔d3 ♗h6 38 f4!

Closing the roof of the cage formed by the doubled pawn and White's bishop and pawns. The imprisoned bishop can only get out of this cage by means of being exchanged for the white bishop which involves a lost king and pawn ending.

38...g5 39 g4 hxg4 40 hxg5 gxf4 41 exf4 1-0

White wins very simply by placing his bishop on e5, and then taking the queenside pawns. After that the king goes to d7, which forces the enemy king to occupy f7. Then g5 forces a complete zugzwang.

So the bad position of the bishop gave White a win. One often manages to win a game by exploiting the bad position of an enemy knight. There are many examples of this. Tarrasch's dictum, 'A knight at b6 is always badly placed' is an exaggeration, of course, but there is more than a grain of truth in it and Tarrasch often proved it in practice. There are many cases when it has been possible for connoisseurs of the Ruy Lopez to prove that Black has a badly placed knight on d7, while a black knight on a5 can prove a handicap both in the Ruy Lopez and the King's Indian. It is easiest to demonstrate typical play in that case by a concrete example, from a game which is interesting in other respects as well.



This is Kotov-Taimanov, Candidates' Tournament, Zurich 1953. It is easy to see that chances for both sides would be equal were it not for the position of the black knight at a5. Actually the knight got there not from a King's Indian, but after the moves 1 c4 ♘f6 2 g3 e6 3 ♗g2 d5 4 ♘f3 d4 5 b4 c5 6 ♗b2 ♕b6 7 ♕b3 ♘c6 8 b5 ♘a5 9 ♕c2 ♗d6 10 e3 e5 11 exd4 exd4.

Possibly Black could have held the game if he had tried to bring his knight to d8 or d6 via b7, but for some reason he thought the knight was well placed and tried for queenside pressure with its support.

12 0-0 0-0 13 d3 ♗d7 14 ♘bd2 h6

Now we have reached the diagram position. In deciding on a plan, or more accurately how to continue from here, I set myself an aim that was not very complicated, but was strategically correct. I argued that I could not exploit the position of the knight directly, so I would have to exploit the fact that it was cut off from the kingside, as in attacking the king I would have an extra piece at my disposal compared to the defender.

Simple and clear. Now follow how this important positional factor was used in the game.

15 ♖ae1 ♖ae8 16 ♗c1

First of all White is conducting a massive evacuation of all his pieces from the queenside where there is no need for them.

16...♖xe1 17 ♖xe1 ♖e8 18 ♖xe8+ ♗xe8 19 ♘h4!

This is the signal for the storming of the enemy kingside. After the exchange of rooks and after each subsequent piece exchange the 'extra piece' becomes proportionately more important.

19...a6 20 a4 ♕a7 21 ♘f5 ♗f8 22 ♘e4

White, as before, is keen to exchange.

22...♘xe4 23 ♗xe4 b6 24 ♕d1!

All the white pieces now move up to the front line.

24...axb5 25 axb5 ♗d7 26 ♕h5 ♗e6 27 ♗f4 ♘b3

The knight finally gets a chance to raid enemy territory, but it comes too late! Black is attacking empty squares that White vacated several moves ago, whereas the white attack is directed at a very concrete goal – the king. Black has no such chance to get anywhere near the white king, and the well mobilised white army copes easily with Black's sorties.

28 ♕d1 ♕a2 29 h4 ♘a1 30 h5 ♘c2 31 ♗e5 ♕b2 32 ♗c7 ♘a3 33 ♕g4 ♕c1+ 34 ♔g2 ♘b1

Such moves are clear evidence that a catastrophe is near. As Bronstein wrote in his notes to the game: 'the knight wanders about at the edge of the board, as if solving the well-known problem of the knight's tour – play your knight in a minimum number of moves to all the squares of the board without any repetition – while White steadily strengthens his pressure against the king position.'

35 ♗f4 ♘c2?

A gross blunder in a lost position.

36 ♕e2 1-0

So if you ever find that your opponent's knight is stranded at the edge of the board but you cannot play to win it, then start an energetic attack on the other wing.

A classic exploitation of an offside knight is seen in the following famous game by Botvinnik, against Alekhine in the 1938 AVRO Tournament in Holland. It was the only game between them with a decisive result.

White now plays a queen move which forces the knight to go to the edge of the board where it remains out of play to the end of the game.

13 ♕a4 ♘b8

He has to move the knight as 13...♖c8 is bad because of 14 ♗d2! a6 15 ♗xc6 ♗xc6 16 ♕xa6 winning a pawn.

14 ♗f4 ♗xb5 15 ♔xb5 a6 16 ♔a4 ♗d6 17 ♗xd6 ♕xd6 18 ♖ac1 ♖a7 19 ♕c2!

Simple but convincing. White takes control of the c-file for many moves ahead and is ready to penetrate on c6, c7 or c8 according to which will bring him most advantage. Hence it is easy to understand why Alekhine hurries to exchange material as he has to keep an eye on the e-file as well as the c-file.

19...♖e7 20 ♖xe7 ♕xe7 21 ♕c7 ♕xc7 22 ♖xc7 f6

Black defends skilfully. If now 23 ♖b7 then 23...♖c8 24 ♔f1 b5 and it is Black who controls the open file. This variation enables Black to expel the white rook from the seventh rank.

23 ♔f1 ♖f7 24 ♖c8+ ♖f8 25 ♖c3!

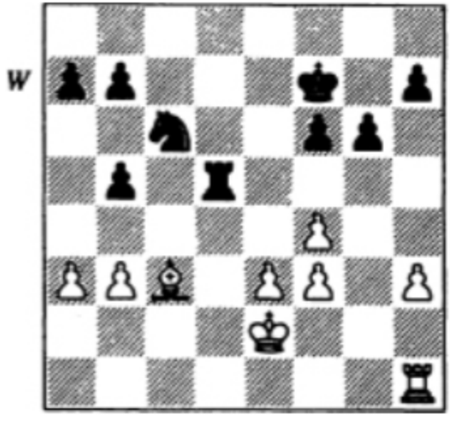
However, Botvinnik too is on top form, and creates an unusual zugzwang. No black piece can move without allowing the rook back on to the seventh. Hence Alekhine is reduced to pawn moves, of which there are not all that many in any-case!

25...g5 26 ♘e1 h5 27 h4! ♘d7 28 ♖c7 ♖f7 29 ♘f3 g4 30 ♘e1 f5 31 ♘d3 f4 32 f3 gxf3 33 gxf3 a5 34 a4 ♔f8 35 ♖c6 ♔e7 36 ♔f2 ♖f5 37 b3 ♔d8 38 ♔e2 ♘b8 39 ♖g6 ♔c7 40 ♘e5 ♘a6 41 ♖g7+ ♔c8 42 ♘c6 ♖f6 43 ♘e7+ ♔b8 44 ♘xd5 ♖d6 45 ♖g5 and White won easily as he also takes the h-pawn.

Having looked at bad positions for bishop and knight we now have the same case with a rook.

This endgame position arose in the game Kotov-Szabo, Budapest Candidates' 1950. After 30 e4 Black made a serious mistake:

30...♖h5?



The only justification for the choice of move lies in the fact that for many moves Szabo had been trying to provoke White into playing b4, and White had kept on avoiding the move. It

simply did not enter Szabo's head that the very move he had been trying to get from White would now be gladly played as it made Black's position untenable.

31 b4! (now the rook cannot get out of the trap, and has to stand immobile till the very end of the game) 31...♘e7 32 ♔f2 f5 33 ♗d2! (preventing the freeing attempt ...g5) 33...fxe4 34 fxe4 ♘c8 35 ♔g3 ♘d6 36 ♖e1 ♘c4 37 ♗c1 a6 38 ♔g4 ♔e7 39 ♖d1 ♘d6 40 ♖d3 ♘f7 41 ♖d1! (White has to be careful; one inaccurate move and the rook would slip out, in this particular case by the tactical 41...♖e5!) 41...♘d6 42 h4 ♘c4 43 ♖d4 ♔e6 44 ♖d1 ♔e7 45 ♖f1 ♖h6 46 ♖f3 ♖h5 47 ♖c3 ♔d7 48 ♗e3 ♘d6 (in all this it is apparent that the black rook is playing no real part in the game; the rook ending after the exchange of minor pieces is also hopeless for Black) 49 ♖d3 ♔c6 50 ♖d4 ♘f7 51 ♗f2 ♘h6+ 52 ♔f3 ♘f7 53 ♗g3 b6 54 ♖d1 (a little stroll before his decisive entry into the enemy position) 54...♘h6 55 ♖d8 ♘f7 56 ♖c8+ ♔d7 57 ♖b8 a5 (nor would Black save himself by 57...♔c7 58 f5+ or 57...♔c6 58 ♗f2 and he loses a pawn) 58 ♖b7+ ♔e8 59 ♖xb6 axb4 60 axb4 ♘d8 61 ♔g4 ♘f7 62 ♗f2 ♔d8 63 ♗c5 ♔c8 64 ♖f6 ♘d8 65 ♗b6 ♔d7 66 ♗xd8 ♔xd8 67 ♖f7 1-0. The rook is still no use at all!

So we conclude that minor pieces and rooks can easily get into bad positions. What about the queen? Can one exploit an immobile queen? After all, the queen is the most mobile piece. However, this mobility and power has one drawback. The queen must flee from the threats of almost any enemy man, as she is so valuable. This enables one to make use of a badly played queen. We have already seen one example of this in the Ragozin-Boleslavsky game (see page 44)

In the notes to the game we are now going to consider, Gligorić-Szabo, Candidates' Tournament, Zurich

1953, Bronstein wrote: 'In choosing an opening plan, players think most of all of harmonious development for the pieces, but sometimes leave the development of the queen out of their considerations. Yet the queen is the most valuable and important piece and the whole outcome can depend upon how successfully she plays her role.'

Black's failure in this game was to take sufficient account of his queen's position.

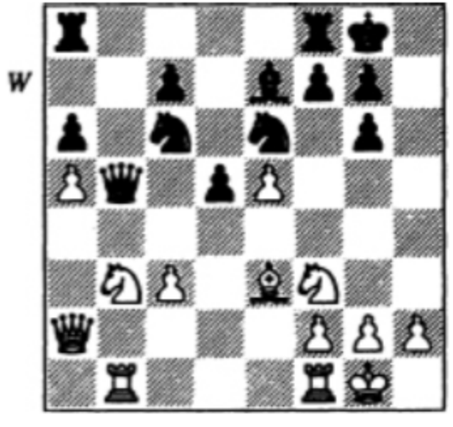
1 e4 e5 2 ♘f3 ♘c6 3 ♗b5 a6 4 ♗a4 ♘f6 5 0-0 ♘xe4 6 d4 b5 7 ♗b3 d5 8 dxe5 ♗e6 9 c3 ♗e7 10 ♗e3 ♘c5 11 ♗c2 ♗g4 12 ♘bd2 ♘e6 13 ♕b1! ♗h5 14 a4 b4 15 a5 ♗g6 16 ♘b3 bxc3 17 bxc3 ♕b8

Black plays for exchanges, apparently fearing that next move White will play 18 ♖d1 with a hidden attack on the queen. Naturally Gligorić avoids any exchanges, and poses the problem for his opponent – which of the 64 squares will serve as a good post for the queen?

18 ♕a2 0-0 19 ♗xg6 hxg6 20 ♖ab1

It was more accurate to play 20 ♖fb1 ♕d8 21 ♖d1 ♖d7 22 ♘c5 ♖xc5 23 ♖xd5! when the queen would continue to find it hard to settle on a safe square, whereas now Black gains time by attacking the white a-pawn.

20...♕b5



21 ♕c2?

This is a curious turning-point in the game. White's unsuccessful manoeuvres on the light squares cause him to let all his advantage slip and even get the worse of it. Bronstein recommends 21 ♘fd4! as correct here, when if 21...♘cxd4 22 cxd4 ♕d7 23 ♖fc1 and White has a positional advantage. White would win brilliantly in the queen sacrifice variation, also pointed out by Bronstein, 21...♘fxd4 22 ♘xd4 ♕xa5 23 ♘xc6! ♕xa2 24 ♘xe7+ ♔h7 25 ♖b4 g5 26 ♗xg5 g6 27 ♖h4+ ♔g7 28 ♗f6 mate.

Thus Gligorić could have continued to harry Black's queen, whereas now it is safely exchanged.

21...♕c4 22 ♘fd2 ♕g4 23 f4 ♕f5 24 ♕xf5 gxf5

We shall not follow the game any further. The ending is inferior for White and he lost in the end. Our aim is to show the sort of trouble the queen can get into, and how White could have got winning chances by the correct continuation 20 ♖fb1.

A bad queen position was exploited by Botvinnik in his game against Denker (Black) in the 1945 USSR-USA Radio Match (*D*).

14...♗d7 15 ♘d2! (Black's queen is in grave danger; only extraordinary measures saved the lady's life) 15...a6 16 ♗xc6 ♗xc6 17 ♘c4 ♕f5 18 ♗d6! e3! 19 ♘xe3 ♕xb1+ 20 ♕xb1 ♗xd6 21 ♕xb6 (White wins easily with his material advantage) 21...♔d7 22 ♕b3 ♗ab8 23 ♕c2 ♖b5 29 0-0 ♖h5 25 h3 ♖b8 26 c4 g6 27 ♘g4 ♖f5 28 ♘e5+ ♗xe5 29 dxe5 ♖xe5 30 ♕d2+ 1-0.

B

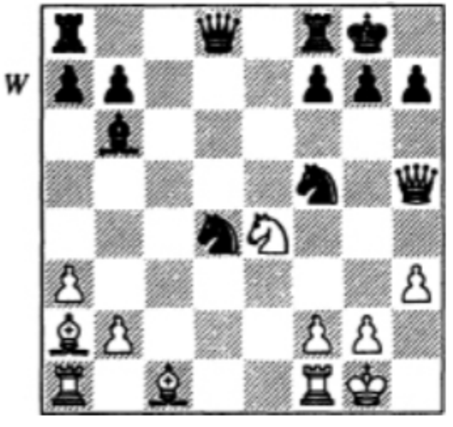
Poor Position of a Number of Pieces

Drawbacks in the position of one's pieces can be of many types, but they share one characteristic – the pieces do not co-operate, lose contact with each other and lack the harmonious unity of a good military detachment.

Sometimes two, three or even more pieces are tied down by the enemy pieces or pawns and so lose mobility. Here are two examples.

I was greatly impressed at the time by Botvinnik's win over Ståhlberg in the 1935 Moscow Tournament. The game began 1 c4 e6 2 ♘c3 d5 3 d4 c5 4 cxd5 exd5 5 ♘f3 ♘c6 6 e3 c4 7 ♗e2 ♗b4 8 0-0 ♘ge7 9 e4 dxe4 10 ♘xe4 0-0 11 ♗xc4 ♗g4 12 a3 ♗a5 13 ♗a2 ♗b6 14 h3 ♗xf3 15 ♕xf3 ♘xd4 16 ♕h5 ♘ef5 (*D*).

Botvinnik's 16th move created a serious threat against the pawns at h7 and f7 – the powerful attack 17 ♘g5 was threatened. Black's last move prepared the defence ...♘h6. All the same, White would have done best to stick to his original plan: after 17 ♘g5 ♘h6 18 ♗b1 f5 19 ♗a2+ ♔h8 20 ♗f4 ♗c7 21 ♗xc7 ♕xc7 22 ♖ad1 or 18...♘b3 19 ♖xh7+ ♔h8 20 ♖b1 ♘xc1 21 ♖bxc1 f6 22 ♗b1 fxg5 23 ♕g6 the white attack is too strong to be with-stood.



The fact that White did not select his strongest line is no loss for us as we are now able to see some very interesting play on the theme of exploiting poorly placed pieces.

17 ♗g5 ♕d7 18 ♕g4 ♔h8 19 ♖ad1 ♔c6

What is the main feature of this position? Botvinnik sums it up thus: 'Black's entire defence is based on the position of his bishop at b6. If White manages to remove this bishop he will win quickly because of the hanging position of the black knights.'

I cannot speak for the reader, but myself I am struck very forcibly by the concrete nature of this assessment and the fact that it is far from obvious. It is interesting to see how the Soviet Champion convincingly proves the accuracy of this assessment by accurate manoeuvres.

20 ♘c3 ♖ae8 21 ♗b1

Apparently it would be simpler to destroy the bishop and so achieve his aim by 21 ♘d5. However, Botvinnik avoided this move as Black has the surprising tactical reply 21... ♕fg6!! (a case of tactics coming to the aid of strategy; in carrying out strategic plans never forget about the possibilities of a tactical reply). Now 22 ♘xb6? is bad after 22...h5 23 ♕f4 ♘e2+, while 22 ♔h2? h5 23 ♕f4 f6 is equally unsatisfactory. Nor does White get anywhere by 22 ♘f4 ♕fc6.

21...♕e6 22 ♖fe1 ♕c8?

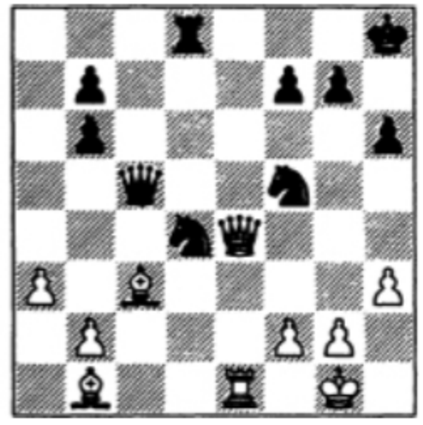
After this the knights are really left hanging in the centre and become easy prey for the roving white pieces. The only way to put up real resistance was 22...♕xe1+ 23 ♖xe1 ♖xe1+ 24 ♔h2 ♘d6 25 ♗d2 f5 26 ♕h4 ♖e6.

23 ♘d5 h6 24 ♘xb6 axb6 25 ♗d2 ♖xe1+ 26 ♖xe1 ♖d8 27 ♗c3 ♖a5 28 ♖e4! (*D*)

The complete triumph of a correct plan! The knights are bogged down in complete immobility, and there is a threat of 29 g4. Catastrophe cannot be averted.

28...♕c6 29 ♕f4 ♕b5 30 ♔h2

There is no need to hurry: the knights will not run away. Just in case, Botvinnik prevents a possible knight check on e2.



30...♔g8 31 ♖e5 ♕f1 32 ♗xf5 ♘e2 33 ♗h7+ ♔h8 34 ♖xe2 ♕xe2 35 ♕xf7 1-0

In this example Black had two pieces tied down, but there are examples from games between very good players in which all one side's men are badly placed. This tends to be the result of a badly played opening, lack of foresight or excessive haste. Sometimes pieces are put out of commission by a fine move or series of moves by the opponent. Such a state of affairs can cause a quick loss, which is why good players take

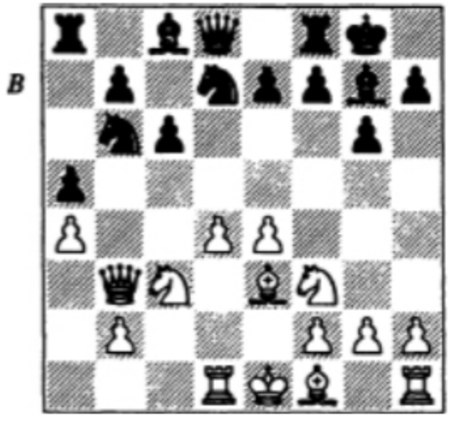
such care to harmonise their forces on the one hand and to disorganise the enemy on the other. In the next game, poor opening play by Black left nearly all his pieces tied down, which naturally enough meant a quick win for White.

Botvinnik-Yudovich, 8th USSR Championship 1933

1 c4 ♘f6 2 d4 g6 3 ♘c3 d5 4 ♘f3 ♗g7 5 ♕b3 c6 6 cxd5 ♘xd5 7 ♗d2 0-0 8 e4 ♘b6

The right line was 8...♘xc3 9 ♗xc3 with only a very slight advantage to White. The knight at b6 will not only soon be badly out of play, but will force several other black pieces to come to its defence.

9 ♖d1! ♘8d7 10 a4 a5 11 ♗e3



Botvinnik now sums it up thus: 'A remarkable position has arisen in which the knight at b6 is the source of all Black's troubles. It has no move, and must be defended twice as White is threatening all the time to advance the d-pawn. As a result, five black pieces are tied down: queen, rook, bishop and both knights.'

11...♕c7 12 ♗e2 ♕b6 13 ♘a2 e6 14 0-0 h6

Black's intentions are clear. He wants to play ...f5 so as to gain the d5-square for his unfortunate knight. If he could

achieve it, he might unravel the bunched-up pieces stuck on the queenside. Botvinnik could now play 15 ♘e5!! and tie up the enemy pieces once and for all, but, as he admits, he went wrong by not seeing that ...f5 was possible.

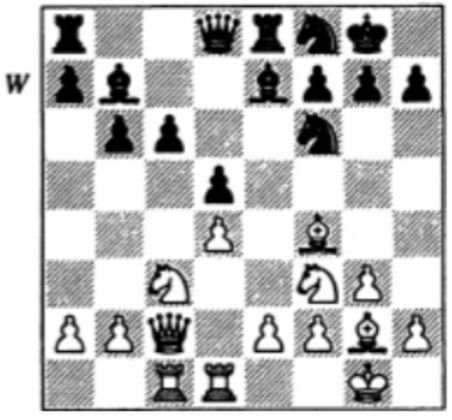
15 ♖c1 f5 16 ♘c3 ♔h7 17 ♖fd1 fxe4 18 ♘xe4 ♕b4

Black goes wrong. He could still put up some resistance by 18...♕e7, whereas now his position falls to pieces.

19 ♕c2 ♕xa4 20 b3 ♕a3 21 ♘h4! ♕c7 22 ♘xg6 ♔xg6 23 ♗h5+!! 1-0

Mate is forced.

Another common defect in piece position is crowding. A number of pieces can be jammed up against one another like a large crowd in a narrow street. Naturally, such a situation cannot lead to any good. Pieces jumbled together cannot put up much resistance.



This position arose in the game Zamikhovsky-Botvinnik, 7th USSR Championship 1931. White played the following bishop manoeuvre.

13 ♗h3 (13 ♘e5 ♗d6 14 ♘d3 was correct) 13...♘g6 14 ♗g5 h6 15 ♗e3 ♗d6 16 ♗f5 ♘e7 17 ♗d3 ♕d7 18 ♔g2 ♗c8 19 ♘g1 ♘g4 20 ♗d2 ♗b7 21 ♘f6 22 ♘h3

What has it all led to? Look at the white pieces. Why are they piled up together like that around c2 and d2? Is it to

carry out some strategic task? No, they are just there – full stop!

It is no surprise that Botvinnik was able to scatter the white army by some energetic play.

22...c5 23 e3 c4 24 ♗f1 b5 25 ♖e1 ♗c6 26 ♘d1 ♘f5 27 ♔g1 b4 28 ♘hf2 ♕c8 29 ♗h3 ♗d7 30 ♗xf5 ♗xf5 31 e4 ♗g6 32 ♕a4 dxe4 33 ♘e3 exf3! 34 ♗xb4 ♗xb4 35 ♕xb4 ♖b8! 36 ♕xc4 ♕b7

Threatening 37...♖bc8, winning the knight at e3. The rest of the game needs no explanation.

37 d5 ♕xb2 38 ♕f4 ♕xa2 39 ♕xf3 ♕a3 40 ♖a1 ♕c5 41 ♖ad1 ♖b3 42 ♖c1 ♖exe3 43 ♖xc5 ♖xf3 44 ♖c7 ♖b2 45 ♘d1 ♖d2 0-1

In the next example the retribution for having bunched-up pieces was quicker and more cruel.

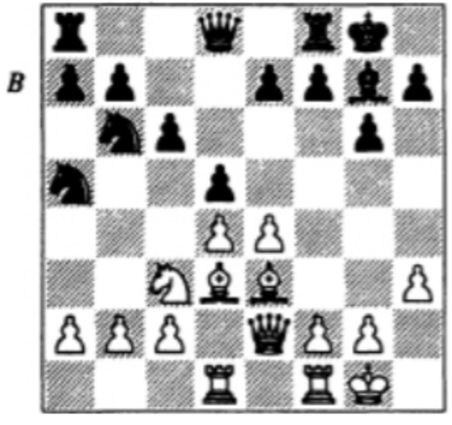
The Swedish master Horberg was White against me in the 1959 Stockholm Tournament and somehow, quite without realising it, got his pieces bunched together in the middle of the board.

1 e4 d6 2 d4 g6 3 ♘f3 ♗g7 4 ♗c4 ♘f6 5 ♘c3 0-0 6 0-0 ♗g4 7 h3 ♗xf3 ♕xf3 ♘fd7 9 ♗e3 ♘c6 10 ♕d1 ♘b6 11 ♗b5 ♘a5 12 ♕e2 c6 13 ♗d3 d5 14 ♖ad1 (*D*)

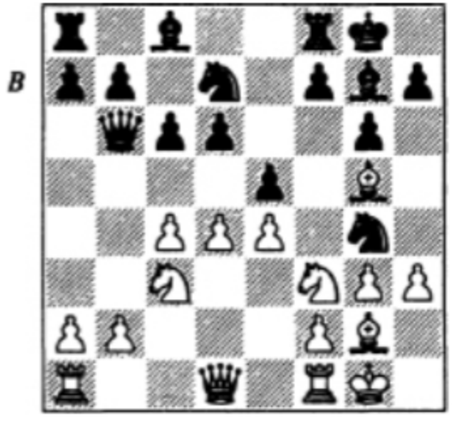
At first sight it appears that White has a good game, but if you examine the situation more carefully you notice that his pieces do not combine together.

That is why the energetic 14...e5! ensures a win for Black. To defend himself against the threatened fork on d4 White played 15 exd5 exd4 16 dxc6 but after 16...♘xc6! 17 ♗b5 ♕c7 18 ♗xc6 dxc3 19 ♗e4 cxb2 he stood very badly. He

then blundered by 20 ♗d4 and after 20...b1♕ was forced to resign.



Another frequently occurring defect in piece position is isolation, so that one half of your pieces doesn't know what the other half is doing. Then you must be in a bad way.



In this position Smyslov (Black against Botvinnik in the 1954 World Championship match) went in for a bold sacrifice of the exchange, intending to exploit the consequent separation of the white pieces from one another, while his own pieces co-operated well together.

11...exd4! 12 ♘a4 ♕a6 13 hxg4 b5 14 ♘xd4 bxa4 15 ♘xc6 ♕xc6 16 e5 ♕xc4 17 ♗xa8 ♘xe5

Now Botvinnik assesses the position this way, 'White has a difficult position. His pieces are split up, Black's pieces

control the centre, and White's kingside is weak.' These advantages enabled Smyslov to go on and win the game. Let the reader note what a powerful well-knit force the black pieces are from now on, right to the end of the game.

18 ♖c1 ♕b4 19 a3! ♕xb2 20 ♕xa4 ♗b7 21 ♖b1

Botvinnik goes wrong. By 21 ♗xb7 ♕fxb7 22 ♖c3 he thought afterwards that he could still have retained some drawing chances. Now the united black pieces mount an attack that cannot be stopped.

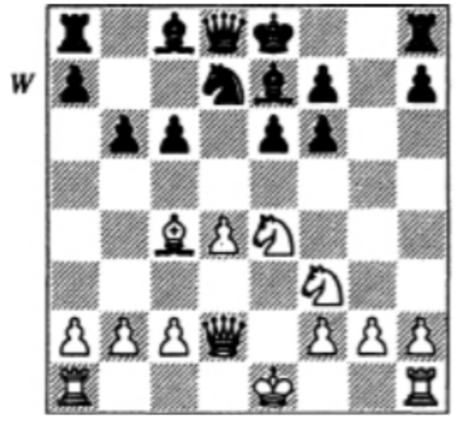
21...♘f3+ 22 ♔h1 ♗xa8! 23 ♖xb2 ♘xg5+ 24 ♔h2 ♘f3+ 25 ♔h3 ♗xb2 26 ♕xa7 ♗e4 27 a4 ♔g7 28 ♖d1 ♗e5 29 ♕e7 ♖c8! 30 a5 ♖c2

Look at the compact united black forces, a marvellous example of piece co-operation.

31 ♔g2 ♘d4+ 32 ♔f1 ♗f3 33 ♗b1 ♘c6 0-1

One final defect, and possibly the most significant, is backwardness in development when several pieces are still on their original squares. The way to exploit this is to start making threats and mixing things straight away. If there are no direct ways of attacking, then find some indirect way of keeping your opponent busy. Do not give him a chance to complete his development, as once he gets his pieces out your advantage will be gone. In other words sharp, direct play is called for, even involving sacrifices if necessary.

So as not to dwell too long on this, here is an example that demonstrates clearly the best way to play against an under-developed position.



This was reached in Kotov-Kalmanok, Moscow 1936.

Black is badly behind in development, especially on the queenside. If White does not hurry, Black will play ...♗b77, ...♕c7 and then castle long. In this case the game would be level. However, White is not going to dawdle and begins an immediate hand-to-hand fight.

10 ♕h6!

Threatening to win the h-pawn by 11 ♕g7. Then the passed h-pawn would be a powerful weapon. Black has to stop this by retreating his bishop, leaving his development even more backward.

10...♗f8 11 ♕f4 ♗b7 12 0-0-0 h5 13 ♔b1 ♗e7 14 ♕g3!

Once again with a concrete threat of 15 ♕g7 driving the rook to f8 and so winning the h-pawn. This calls for a defensive move.

14...♘f8 15 ♖he1 f5 16 d5!

This is a crushing move as if 16...exd5 17 ♘f6 #, while 16...fxe4 loses to 17 dxe6 and 18 exf7+.

16...cxd5 17 ♗b5+ ♘d7 18 ♘e5 ♕c7

Now White just took the knight and won. After 18...♗c8 there is an amusing mate: 19 ♕g7 ♖f8 20 ♖xd5 exd5 21 ♘f6+ ♗xf6 22 ♘g6+ ♗e7 23 ♖xf8 #.

In conclusion, I should like to emphasise the importance of correct piece positioning. Remember that in seeking the solution of concrete tasks by analysing variations you should never allow yourself to be carried away and lose sight of the need for a harmonious link between all your pieces. Take it as a rule once or twice to look at the position from a different point of view during the game. Ask yourself, 'Are my pieces all co-operating, or is there some disharmony in their ranks?' A quick check like this can be of great help.

A grandmaster normally relies on an unconscious feeling developed by years of experience to see if he has put his pieces on the right squares. Possibly the reader is as yet lacking such intuition. Try to make up for this at first by a conscious effort to make the check we have described, and then you will not get into the sort of difficulties we have been describing in this section, the difficulties which arise from having poorly posted pieces.

Space and the Centre

We have decided to examine these two important positional concepts together. In fact there is a genuine organic connection between them. If we wish to gain a noticeable advantage in space we must have a firm control over the centre – we must break the opponent's resistance there and drive his pieces away. If we have taken control of the centre, our opponent cannot improve the position of his pieces. Conversely, any strategically well-based gain of space must give us control of the centre.

The question of the centre has received a great deal of attention in the last century or so, i.e. during the period of maturing of positional thought. First of all the experts proposed the motto, 'Occupy the centre with your pawns'. In such openings as the Giuoco Piano, King's Gambit and Evans Gambit the two white centre pawns were generally played two squares forward. The pawn centre at that time was considered sacred, and its creation was thought to be an early sign of the fact that you were approaching a win.

Then came the hypermoderns. They said that central pawns were not all that formidable. You merely had to exert pressure on them by means of your pieces and the pawn centre had lost its force. It was in these years that such openings as the Réti Opening, Alekhine's Defence, Nimzo-Indian Defence and Grünfeld Defence were invented.

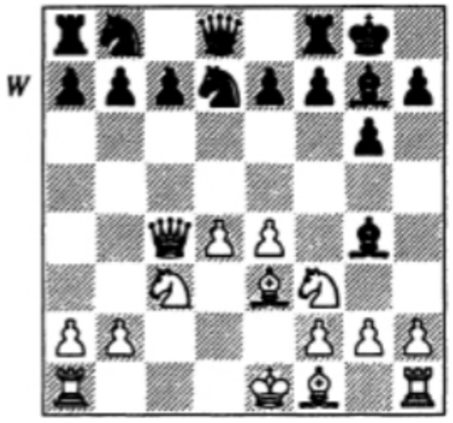
In all these lines a pawn centre was formed by one side, but his opponent took measures to attack it straight away.

Years went by and Soviet players took a hand in this dispute about strategic problems. Since then, a great deal has fitted into its right place. The pawn centre is still respected,

sometimes even praised as enthusiastically as in the days of Anderssen and Morphy, but with the qualification that such a centre has to be firmly supported by pieces, that one's whole army must unite to strengthen central positions.

At the same time there has been an immense amount of work done on new ways of attacking a pawn centre. The most varied methods have been found in established defences, and pride of place has been taken by the King's Indian Defence, that most complicated counterat-tacking defence. In such openings, the centre is in White's hands for the moment, but Black has counter-chances which will force White to very great efforts to defend his central build-up.

Or take the example of Smyslov's Variation of the Grünfeld Defence: 1 d4 ♘f6 2 c4 g6 3 ♘c3 d5 4 ♘f3 ♗g1 5 ♕b3 dxc4 6 ♕xc4 0-0 7 e4 ♗g4 8 ♗e3 ♘fd7.

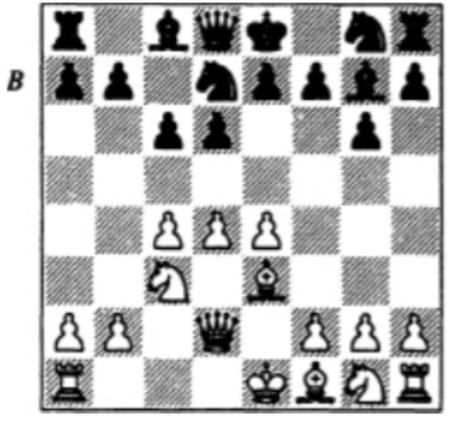


Black would really be in hot water with Tarrasch for having such a position! He would probably pronounce Black's game to be hopeless, yet how many interesting games have been won by Black from this position by means of a counter-attack on the white centre!

In recent years there has been a tendency to neglect the pawn centre completely. In any recent top-class tournament you might find a game starting with a sequence of moves such as

1 d4 d6 2 c4 g6 3 e4 ♗g7 4 ♗e3 c65 ♘c3 ♘d7 6♕d2

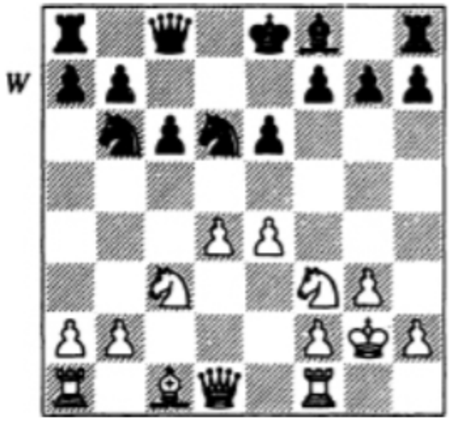
The whole centre is in White's hands, and Black has not yet even started fighting for a single central square, unless one counts the g7-bishop's attack on the white centre pawn. Yet modern masters do not fear this formidable centre.



They pin their hopes on the middlegame. At that stage they intend to strike hard at White's central fortress, hoping in the rough and tumble that arises to destroy or put to flight the apparently well-entrenched white army.

We shall consider the question of the centre in more detail when we deal with planning. For the moment, bear in mind that you must be flexible in your intentions and in your decisions on strategic problems. Take note of the features of every position in a concrete way. On the one hand do not fear the enemy centre, but on the other do not lose all respect for it. A pawn centre well supported by pieces is still a serious factor. For example, who would not like to play White in the next diagram?

White has a strong pawn centre, and as will soon become apparent, Black has taken insufficient precautions against its possible advance. Botvinnik, playing White against Levenfish in the 1935 Moscow Tournament, immediately takes advantage of this carelessness.



14 d5! ♗e7

Black is behind in development and cannot afford to open the centre. This factor gives the white pawns their chance to advance further.

15 e5 ♘b5 16 d6 ♘xc3 17 bxc3 ♗d8 18 ♕d4 c5 19 ♕g4 ♖g8 20 ♕e4 ♖h8 21 ♗c3 ♘d7 22 ♘d2 f5 23 ♕a4 ♔f7 24 f4!

Doesn't Black's pitiful situation make you shudder? One can only be amazed at the tenacity of Levenfish, who managed to hang on so long in such a cheerless position.

So, I repeat, have respect for your opponent's pawn centre, but don't tremble at the sight of it. Learn to assess when it is genuinely dangerous, and when it won't cause you any trouble at all. These are the limits between which you should work at the start of a game when the central pawn structure is being set up.

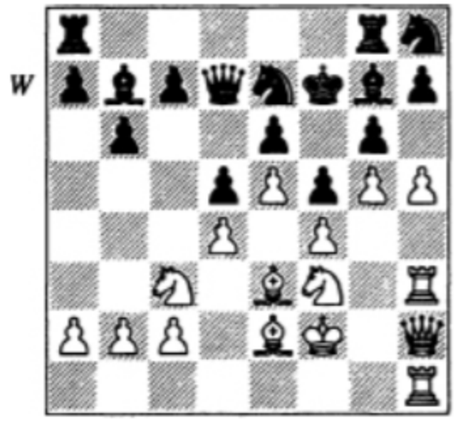
Show respect, but do not fear! That is the correct attitude.

Much the same applies to a space advantage. It is nice to press the opponent back on to his two or three back ranks, but this certainly does not mean that we have an automatic win. As Bronstein wrote, there are players who like a cramped position in preference to a free open one, and tend to get better results when playing the type of position they prefer. Generally speaking, such terms as 'cramped game' and 'free game' predominate in the minds of theoreticians but have much less influence on tournament games than is generally thought.

Having given Bronstein's views, I now take the liberty of expressing my own opinion on cramped positions. In my time I have squeezed an opponent to death by a general advance of all my forces, but I have also been on the receiving end of such squeeze tactics. Such a state of affairs does not greatly worry me, possibly because of my temperament – I can normally make the greatest effort when I am threatened by serious danger. Hence the most difficult positions never seem lost to me; as long as I have my army, there is still hope of a counter-attack.

I shall quote one instructive instance of this. In my game against Liebert (Sochi 1967) the opening had gone very much against me as Black.

1 e4 d6 2 d4 g6 3 ♘c3 ♗g7 4 f4 ♘c6 5 ♗e3 ♘f6 6 ♘f3 0-0 7 ♗e2 d5 8 e5 ♘g4 9 ♗g1 f6 10 h3 ♘h6 11 g4 f5 12 g5 ♘f7 13 h4 e6 14 ♗e3 ♘e7 15 ♔f2 ♕d7 16 h5 ♖e8 17 ♕g1 b6 18 ♕h2 ♘h8 19 ♖ag1 ♔f7 20 ♖g3 ♖g8 21 ♖h3 ♗b7



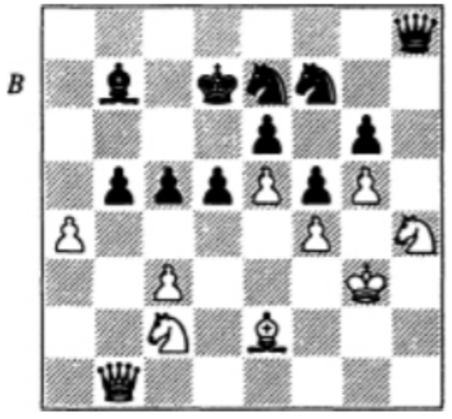
'What are you playing at? Is that really a position?' asked the late Volodya Simagin, while we were walking about awaiting our opponents' replies.

'Well,' I replied, shrugging my shoulders, 'It's a position of sorts.'

But my former trainer could only say in annoyance, 'Oh, you, you … Is that the way I showed you how to play? Give me White's position and I'd smash you in a few moves.'

Volodya was a straightforward person and always said what he thought, but I didn't feel it was as bad as all that. I would have some awkward moments, agreed, but that is what I was prepared to put up with for the sake of counter-attack. A counter-attack by definition can only come when your opponent has attacked you first. Possibly I had given him too much rope, but the real fight still lay ahead.

However, I had to spend a very long and painful period of time preparing the counter-attack, and Simagin was proved right after all. It is better not to give your opponent as much scope as I had done. Nevertheless, I still felt immense satisfaction when, on the 50th move, I was able to decide the game in my favour by a freeing knight sacrifice:

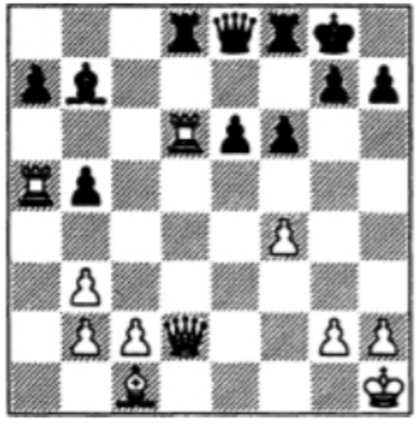


50...♘xg5! 51 ♗xb5+ ♔c8 52 fxg5 ♕xe5+ 53 ♔f2 ♕xc3 54 ♕d1 ♕h3 55 ♘f3 d4 and Black's forces, which had suffered so long from being cramped, now became fiendishly active.

So one need not fear phantoms; being cramped is unpleasant, but it is not a really serious positional defect!

Exercises

13
B

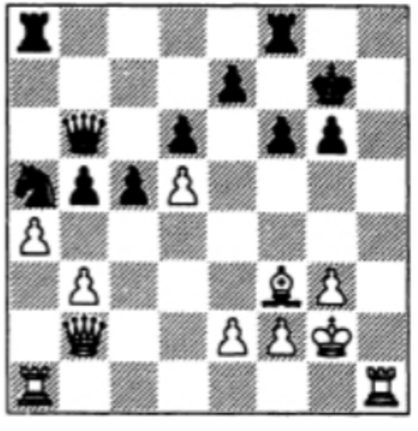


Assess the position. What are the decisive positional factors and how does Black to move go about achieving a decisive advantage?

14
W

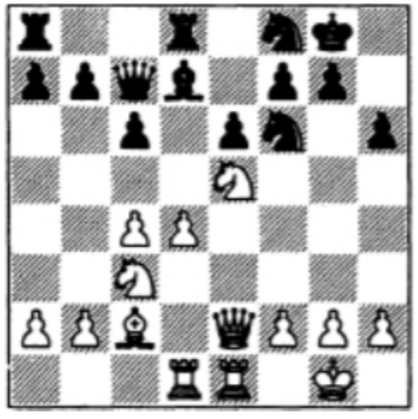
Which factor gives White the chance to force a win by moving in this position? Find the shortest way to win.

15
W



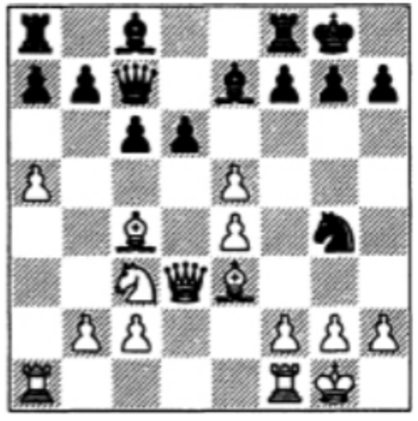
White to move. Which positional factors allow White to play a forced winning manoeuvre? Find this manoeuvre.

16
W



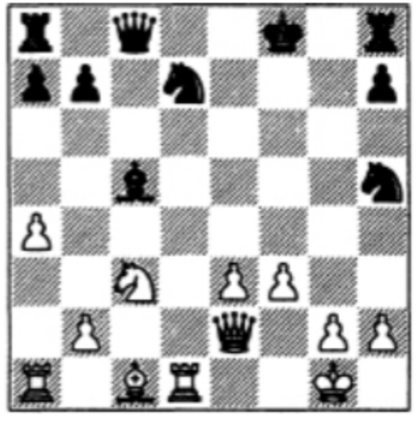
White to move. White can create a serious positional weakness in his opponent's position and then exploit it. How?

17
B



What positional factor allows Black (to move) to gain a decisive advantage? Find the winning line.

18
W



What is the defect in Black's position? Find how White to move can make use of this.

An Experiment Continued

In the first section of this book, we conducted the imaginary experiment of getting Grandmaster Smyslov to sit down at the board and help us to carry out a 'static' analysis of what goes on in a grandmaster's mind during play. In fact, the player started thinking from the moment that the white clock was started. More than that, the game had been in his mind the morning of the same day, and he was preparing himself for it psychologically and theoretically the day before. Going even further, one could say that his encounter with today's opponent was to some extent thought out and planned for during pre-tournament preparation several weeks before.

Let us now discuss how a player's thoughts work in an actual game. Let us consider how these 'dynamic' experiences differ from the static approach we have adopted up to now. Let us now take the case of Polugaevsky, who has been playing a game and has had no break in thought from the very first move. How would his thoughts differ from those of Smyslov, who has come fresh to the position? If we can answer this question correctly we will come to understand many of the finer points of chess psychology, and many secrets of a grandmaster's thinking.

After playing the standard moves in the opening quickly, Polugaevsky settled down to analyse variations and in the position to which Smyslov came with no prior knowledge, Polugaevsky already has a solid reserve of candidate moves. For many of these candidates repeat themselves move after move. If, for example, ♘g5 did not work last move then

it will still be considered next move. You do not have to discover the move; it suggests itself to you from earlier times.

Polugaevsky (whom we consider here to be in all respects the equal of Smyslov as a player) will analyse the variations more deeply; his tree of analysis will have more branches and shoots and they will be longer and thicker. Many variations will be ones he has already considered at earlier moves and, thinking about them again, he will be able to penetrate more deeply into the position. He will not only be able to find new variations; he will also be able to improve his previous analysis, to test it more deeply and refine it.

There is another significant difference. When Smyslov sat down at the board he was as 'cold as ice', not having lived through the excitement of the previous stages of the battle with its surprise moves, oversights and joys at partial success. In other words, his mind had not yet warmed up to the right pitch of tension and so was not yet working to its full capacity. After two or three hours of play a grandmaster's mind is working on all cylinders and gives maximum output. The grandmaster in his 'dynamic state' is more efficient than when he is suddenly confronted with an unexpected task.

Usually we have in mind a young and well-trained grandmaster who is not exhausted by long hours of work at the board. As well as analysing deeply, he will also assess the position better than if suddenly confronted with an unknown position. To some extent, the grandmaster will have made his assessment many moves back and will only check it each move, correcting where necessary. In this he is helped not only by the work he has done earlier in the game but also by all his previously acquired knowledge.

Grandmaster Polugaevsky knows the opening from which the present position has arisen and that means he knows

a number of previous games in which similar positions have arisen. He knows the analysis of the annotators of these games, the plans which have been tried in analogous situations. At every move he is helped by his erudition, accumulated over the years that he has worked at the game.

Thus, in a given tournament game it is easier for a grandmaster to find the best move than it is in the situation in which we put Smyslov. However, there are some negative factors which may appear. Polugaevsky may get used to the ever-repeating decisions which he is making at every move and which are so similar to each other. As a result he may miss something new and therefore unexpected, but all the same this is not a very great danger.

Imitate Botvinnik or Najdorf?

From my earliest top-class tournaments, I have examined my colleagues closely and taken an interest in how they behave during a game. Some sit down at the board five minutes before play is due to start, and get up only when the game has finished or it is time to adjourn it. Others jump up as soon as they have moved and walk round quickly, quite happy to talk to the other players (*Editor's note:* Certain players have traditionally taken a liberal view about talking during the game) and rush back to the board just as energetically as soon as their opponent moves.

Botvinnik has always been an example of Olympian restraint and concentration. Only in recent years has he allowed himself a little rest by walking once or twice round the stage during a game. His exact opposite is Najdorf, who cannot sit still. He not only walks round the stage when it is not his turn to move, but he also pats his fellow players on

the cheek, exchanges a joke with them and never forgets to ask his favourite question, 'How do I stand?'

I myself was always somewhere in the middle between these two extremes, but a little closer to Najdorf. However, I must confess that I was always annoyed at myself for this. What a fidget! Always jumping up can disturb your analysis, and tends to make your decisions superficial. On the other hand, how can you bring yourself to sit still for five hours? What did Botvinnik do to occupy himself when his opponent was thinking?

One day, however, I had an inspiration and realised what good use the walking time could be put to. After all, the grandmaster's thinking process is split into two components. On the one hand he analyses variations by going along the tree of analysis, on the other he is assessing the position, judging positional factors and planning for the future. In short, concrete analysis and general considerations.

What if one were to split these two jobs up in time? If I analyse variations only when my clock is going, and think of the general considerations while my opponent's clock is ticking away, this would be a great saving in time. Possibly this was the explanation of the concentration of those who sat at the board all five hours.

I tried to apply this method and although my ingrained habits sometimes reasserted themselves and induced me to get up and walk about, I still managed to think about positional problems at my opponent's expense.

When later I was busy writing this book, I approached Botvinnik and asked him to tell me what he did when his opponent was thinking. The former world title-holder

replied in much the following terms: 'Basically I do divide my thinking into two parts. When my opponent's clock is going I discuss general considerations in an internal dialogue with myself. When my own clock is going I analyse concrete variations. In recent years I have often taken a rest between bouts of analysis and I walk about on the stage. This is a concession to my age and increasing fatigue. But it is likely that the nature of a grandmaster's thoughts and his conduct during the game is influenced most by the state of his position and the state of the clocks. If his position is bad and he only has minutes left there can be no rest for him, no matter which clock is going. The whole time must be considered as working hours. For the rest of the playing session it is a case of "all hands on deck". You can and you must teach yourself to analyse variations even when you have stopped your own clock and started the opponent's. You must do this just as keenly and conscientiously as if it were your turn to move.'

I had no choice but to put the same question to the hero of our story, Vasily Smyslov and ask his opinion on this point. The former world champion exclaimed, 'Sit there for all five hours? Certainly not! I have studied physiology and it indicates that it is harmful to stick to the same pose for several hours on end while working. A player must walk about between moves; it helps his thinking. As for general principles and consideration of positional factors, you can do this while walking about, checking in case of need with the position on the demonstration board.'

What advice should I give to the reader? The answer is not difficult. Of course it is better to imitate Botvinnik rather than Najdorf, but to carry out this advice is far from easy.

The games of 'peripatetic' players inevitably carry traces of superficiality, whereas the concepts of the 'sitters' are marked by great depth. However, their example cannot be easily followed if your character and ingrained habits militate against it. Possibly even your upbringing plays a part. If, when you were at school, or even earlier, you couldn't keep still, you cannot easily modify this when you have matured. Nevertheless, you have to make the effort.

The nervous system and state of health also play a part. Each player should know himself, his positive and negative characteristics. If you notice that sitting still for a long time tires you, then have a break, take a stroll round and follow Botvinnik's example of having a coffee. At all costs try to cut down on the number of times you jump up from the board, and if you do leave the board, then continue to think about the position as Smyslov does.

Finally, a word on a few phenomena which do not occur very often in grandmaster play, but are still significant. It can happen that constant looking at polished pieces for hours on end can prove tiring. Bronstein, for example, often looks at the demonstration board even when his clock is going. Possibly the Muscovite's habit of analysing positions from diagrams in books is the reason here. In that way he may find it easier to work it out. Others suddenly lift their eyes from the board and start looking into thin air. However, they are not resting; somewhere deep in the recesses of their mind a choice of variation is being made and their unusual intermission is simply a rest for their eyes.

Only the naïve could think that a grandmaster walking about the stage is a pure idler. No, at such a time the tension remains high, and the short walk is just a way of limbering up. Even the jokes, the quiet chit-chat, the low laughter are

of an unusual nature. They are accompanied by constant activity in the brain cells. The best proof of this, is the sudden inspirations that break in on this chatter. A joker will suddenly stop speaking in the middle of a phrase, glance at the demonstration board in fright and race back to his board. He sits down quickly, feverishly analyses variations, then smiles and comes back happy to the group he had just left. He had suddenly been struck by the idea that he had overlooked something, and needed to reassure himself about his position.

What is Concrete and What is General?

So we have established that the ideal division of a player's thinking time is to study general considerations when his opponent's clock is going, and to study concrete problems when his own clock is going. What is concrete is clear without further explanation – finding candidate moves and analysing variations, going along the branches of the tree of analysis. But what are general considerations?

This should not be too obscure for the reader. It involves assessing a position: first break down the position into its elements, then syn-thesise them. The next stage is to conceive a plan for the future, both short-term and long-term.

This type of work is not easy and demands deep thought and accumulated knowledge. In other spheres of human knowledge and art, a number of short-hand formulae have been developed which help the practician to remember the most important rules. Some progress has been achieved in the field of chess too, particularly due to the efforts of such teachers as Tarrasch and Tartakower. Some of Tarrasch's rules have not lost their validity even nowadays, for

example, 'In a rook ending keep your rook behind a passed pawn, whether yours or your opponent's'. Other Tarrasch rules, however, have been diluted in our modern concepts of the game, for example 'Develop knights first and bishops later'. Well, what about the common modern opening 1 e4 g6 2 d4 ♗g7?

Years of practical play, analysis and the study of the connection between piece formation and efficiency have developed a fund of such apt and easily remembered short-hand formulae. These formulae describe regularly recurring features in all three stages of the game, opening, middlegame and ending, but unfortunately no one has ever bothered to gather them all together.

Let the following selection be a stimulus to the reader, and may my fellow grandmasters carry on the work of gathering together all such formulae as do exist.

General Questions and Preparation

'At the end of the last century a new approach to chess was born – the research approach.' – Botvinnik

'A chess master has no more right to be ill than a general on the battle field.' – Steinitz

'Amongst Alekhine's special characteristics was the fact that he prepared carefully for each and every tournament game, always taking account of the individual nature of his forthcoming opponent.' – Spielmann

'One has to have a knowledge of human nature and the opponent's psychology for the purpose of the chess struggle. In earlier times, the struggle was conducted only by means of the pieces. We, on the other hand, struggle (or at least try to struggle) with our opponent, our enemy, with his will-

power, his nerves, his individual characteristics and last but not least with his vanity.' – Alekhine

The Opening

'Young players expose themselves to grave risks when they blindly imitate the innovations of masters without themselves first checking all the details and consequences of these innovations.' – Alekhine

'Shall we ever live to see the following wise prohibition – the audience is forbidden to smoke and the masters are forbidden to "smoke out" the audience by playing exchanging variations?' – Tartakower

Middlegame

'To lose one's objective attitude to a position nearly always means ruining your game.' – Bronstein

'One should never, without very good reason, retreat a knight to the back rank, if this hinders the linking up of the two rooks.' – Alekhine

'If you have made a mistake, or committed an inaccuracy, there is no need to become annoyed and to think that everything is lost. You have to reorientate yourself quickly and find a new plan in the new situation.' – Bronstein

'If your opponent has the exchange for a pawn in a quiet position this can easily still end up as a draw. However, if you are a clear exchange ahead the winning plan consists of giving back the exchange so as to come out a pawn up.' – Capablanca

'Even in the heat of a middle-game battle the master still has to bear in mind the outlines of a possible future ending.' – Bronstein

'White suddenly started playing for a win. The logic of chess does not permit this. If the position is clearly level the sheer desire to win cannot swing the balance.' – Bronstein

'Playing for complications is an extreme measure that a player should adopt only when he cannot find a clear and logical plan.' – Alekhine

The Ending

'One of the most characteristic prejudices of modern theory is the widespread belief in the significance of a pawn majority (on the flank – A. K.) by itself, without reference to the pawns that form this majority or the position of the pieces.' – Alekhine

'With opposite-coloured bishops the attacking side has in effect an extra piece in the shape of his bishop.' – Botvinnik

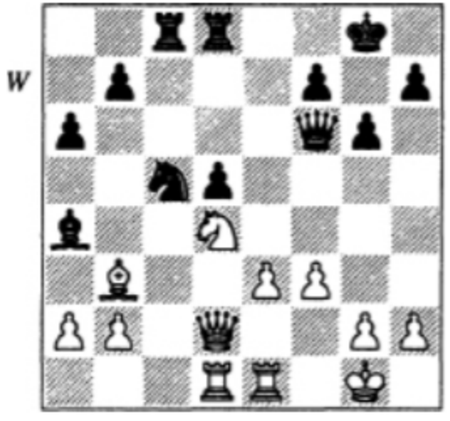
'A knight ending is really a pawn ending.' – Botvinnik (The correct method of play in a knight ending is very similar to that of a pawn ending, namely zugzwang, holding back passed pawns, winning a tempo with the king and so on.)

'In opposite-coloured bishop endings, when both sides have weak pawns one should not try for a big material advantage.' – Botvinnik

General Formulae and Concrete Analysis

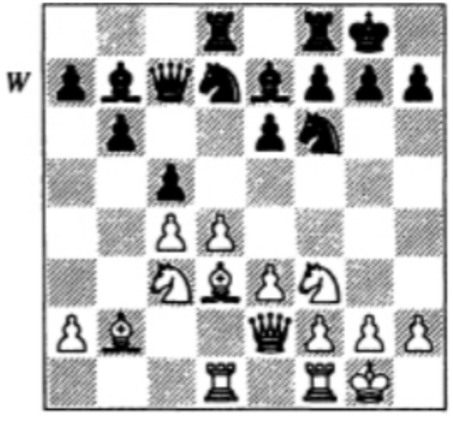
Let us now take some examples which show how general formulae fit in with concrete analysis and how they help us make the right decision.

In annotating the game Flohr-Vidmar, Nottingham 1936, Alekhine makes the following remark after Black's 20th move ...♗d7-a4:



'After Black manages to force an exchange of bishops he has nothing more to fear either in the middle-game or in the ending.' This is an interesting and important guiding principle which should certainly help a player in his choice of moves. The further course of the game – 21 ♗xa4 ♘xa4 22 ♖c1 ♘c5 23 ♖ed1 ♖b6 24 ♘e2 confirmed Alekhine's opinion as by 24...♘e6 followed by exchanges on the c-file Vidmar could have easily drawn.

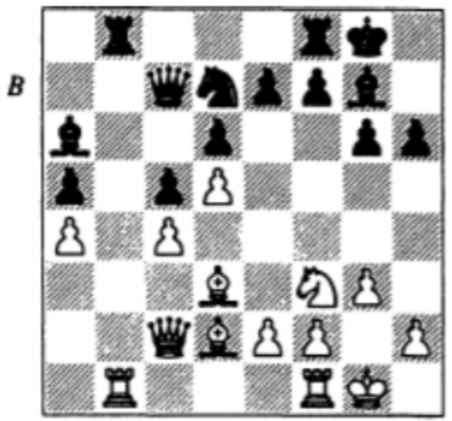
In Keres-Spassky, Gothenburg 1955 there was this position:



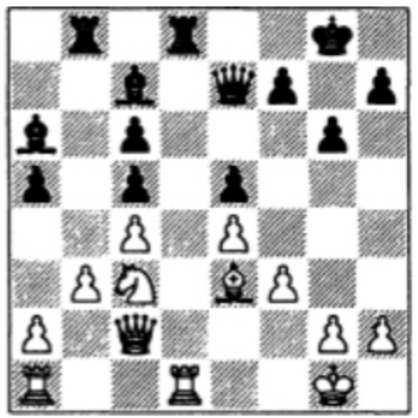
Keres comments on his next move 13 d5!: 'Experience shows that in such positions White always gets the advantage if he manages to play this advance in safety.'

In the actual game this is what happened. After 13...a6 14 dxe6 fxe6 15 ♘g5 ♕c6 16 f4 h6 17 ♘f3 ♕c7 18 ♘h4 ♗d6 White could have got an overwhelming game by playing 19 ♗g6!.

In many master games one comes across a positional sacrifice of the exchange to get a passed pawn and pressure along diagonals. This is what happened in a game Selesniev-Alekhine, Triberg 1921:

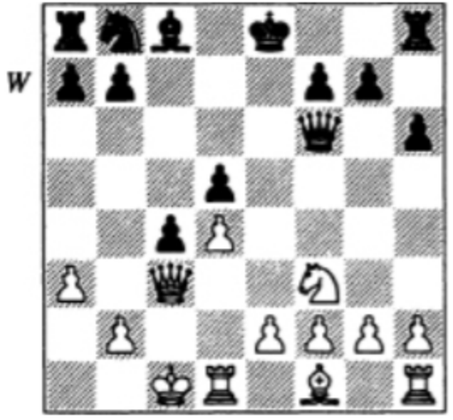


20...♖b4!. Of this move Alekhine wrote: 'The strong passed pawn which Black gets by this sacrifice is well supported by the bishop at g7. Black also gets the chance to attack White's c-pawn. All this fully compensates for the sacrifice of the exchange.' The reader will doubtless get a better understanding of such sacrifices if he reads the following general comment by Botvinnik.



In his game with Liublinsky in the 1943 Moscow Championship Botvinnik played here 25...♖d4!. His comment on the sacrifice runs: 'This sacrifice of the exchange is only possible because Black has a rook left, without the co-operation of which his bishops would not be dangerous.'

Botvinnik makes an interesting comment on his game (with Black) against Veresov in the 13th USSR Championship, 1944.

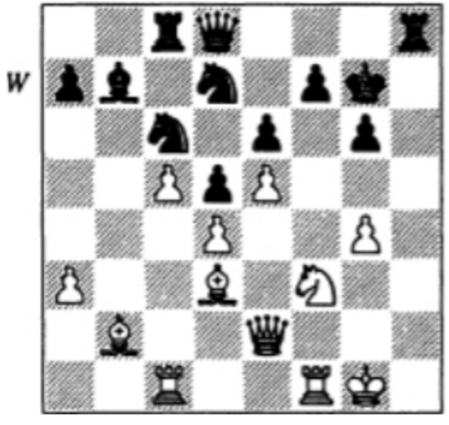


12 ♖e3+ ♗e6 13 ♘e5 ♘c6 14 g4 0-0-0 15 f4. He writes: 'This "energetic" move is a crucial mistake as it weakens in an irreparable way the e3- and e4-squares on the half open e-file. White still felt that his knight on the central square e5 was enough to give him the advantage. In actual fact Black has only to make three moves (...♖he8, ...♕e7 and ...f6) and the good knight position becomes a thing of the past. If White had foreseen this threat he would not have wasted time on 15 f4.

'Generally speaking, a knight on e5 tends to lead people astray in their assessment of a position. If the reader examines the game Lilien-thal-Botvinnik played a year after this one in the 14th USSR Championship he will come to realise that history does sometimes repeat itself.'

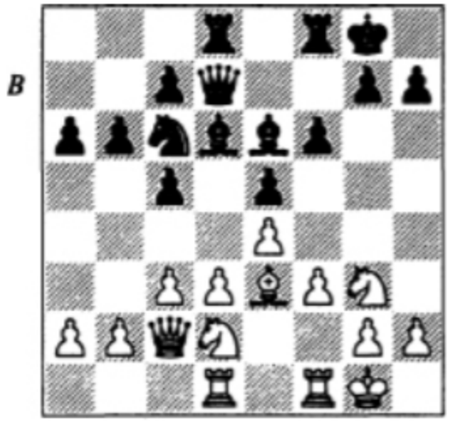
In the Veresov game there now came 15...♖he8 16 ♕f3 ♕e7 17 e3 ♘a5! 18 ♗g2 f6 19 ♘g6 ♕c7 20 ♔b1 c3!! and Black had a winning position.

A comment of Alekhine's on his game against Rosselli (Zurich 1934) is not without interest.



Alekhine with White now played 24 ♖e3 and wrote of this move: 'In the situation which has now developed White's queen must be on a dark square, as Black has no dark-squared bishop. The further course of the game underlined the accuracy of the comment: 24...♕e7 25 ♔g2 f5 26 exf6+ ♘xf6 27 ♕g5 ♖h6 28 ♖h1 ♖ch8 29 ♖xh6 ♖xh6 30 ♖e1 ♘d8 31 ♘e5 ♘g8 32 ♗c1! ♕e8 33 ♖f1 ♗c6 34 ♖f6! ♘xf6 35 ♕xh6+ ♔g8 36 ♗g5! 1-0. The catastrophe that Black suffered came on the dark squares which the enemy queen took under its control at the right time.

To conclude our remarks on general and concrete, let us examine the game Romanovsky-Botvinnik, Moscow 1935, where general aims were combined successfully with concrete action.



15…♗e7

Botvinnik writes of his immediate aims: ‘Black had already intended to advance by …f5, but he had to choose the right moment for the move. For example he could not play the straightforward 15…♘e7 16 ♖fe1 f5 17 exf5 ♘xf5 18 ♘xf5 ♗xf5 19 ♘e4 when the advantage of the bishops is not to be felt. Black must play …f5 *only when White is not in a position to exchange knights on that square* [my italics – A. K.]. White’s following two moves are aimed at strengthening the square d3.’

16 ♘b3 a5 17 ♘c1 ♗d6 18 ♕f2 ♘e7 19 ♖d2 f5! 20 exf5 ♘xf5 21 ♘e4

Botvinnik had taken into consideration the fact that the knight exchange was bad for White at this point because his remaining knight is badly placed. After the moves 21 ♘xf5 ♗xf5 and then … ♗e7 Black develops a promising initiative.

21…h6 22 ♕e1 ♗e7 23 ♗f2 ♗d5 24 ♕e2 ♖fe8 25 ♖dd1 ♕e6 26 ♖fe1 ♗f8 27 ♕c2 ♕f7 28 ♖d2 ♖e6 29 ♖de2 ♖de8 30 ♕a4

After several exploratory moves Botvinnik formulates a new plan, which he describes thus: ‘Black now intends to liquidate the pressure on his e-pawn by transferring his knight to f4.’

30...♘e7 31 ♗g3 ♗c6 32 ♕c2 ♘d5 33 ♘b3 g5 and Black got a big advantage which he went on to turn into a win.

I hope these examples of how to combine general formulae with concrete variations will help the reader to understand this important topic. I recommend him to use general formulae, to define in words what the immediate plans of each side are, both in his own games and in analysing grandmaster games. In doing this he should notice the factors which hinder, and those which help the realisation of these plans. This will help him to improve his play and make it more pithy and more in accordance with the basic laws of the strategy and tactics of chess.

There is one other question about which the reader must always form his own opinion. He must always know which side has the advantage. If your position is superior you are bound to attack. If inferior you are bound to defend. If neither side has the advantage then there comes that stage of the game when the two players manoeuvre for the advantage. Both sides attempt to provoke weaknesses in the enemy camp by cunning thrusts or apparently harmless regroupings. Once a weakness has been provoked, one side has a chance to swing the game in his favour.

Manoeuvring is a complicated but important part of the game and in studying grandmaster games the reader should devote a lot of attention to it.

3 Planning

A Single Plan

Having broken down a position into its elements, and then synthesised the data, a grandmaster gets a more or less accurate idea of the position before him. It is clear to him who has the better game, or who has the initiative; he knows where are the weaknesses in his own position, and where are the opponent's vulnerable spots; he has a clear idea of his task in seizing control of lines and diagonals; he knows which pieces have to be transferred where and what the problems of the centre consist of.

The complicated and laborious process of assessment is finished and now he has to tell himself how to continue. In other words, the time has come to form a plan of campaign.

There is probably no other strategic concept which a student of the game has dinned into him as much as the concept of conceiving a plan, and yet there is no concept about which he is more ignorant.

From his very earliest steps in the game, the player knows that he is supposed to play to a set plan. Planning is written about and talked about so much, yet I must honestly confess that for a long time I could not understand these appeals to have a plan for every eventuality. I simply could not conceive how a complicated fight with unexpected moves and traps, with the advantage continually changing hands could be fitted into a single general plan. 'Have a plan throughout the course of the game,' advised the books and yet I tried in vain

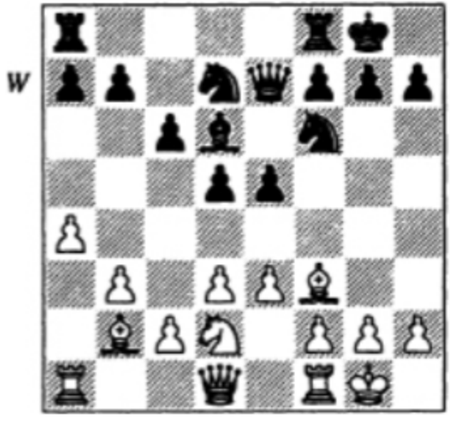
to follow this advice; in my own games the planning side of things was very much a weak spot.

Then a great impression was made on me by the game Romanovsky-Vilner, in the first edition of Roma-novsky's book *The Middle Game*. The advice of this great connoisseur of chess had often been a good guide to me in my efforts to improve my play, and this particular game left an indelible mark on me. Here it is, with only a short outline of the plan which, according to Romanovsky, he stuck to throughout the five hours that the game lasted and which he took many pages to describe in his book.

Romanovsky-Vilner, 5th USSR Championship 1924: 1 ♘f3 d5 2 e3 ♘f6 3 b3 ♗g4 4 ♗e2 ♘bd7 5 ♗b2 ♗xf3 6 ♗xf3 e5 7 d3 c6 8 ♘d2 ♗d6 9 0-0 ♕e7

'White is already well mobilised,' writes Romanovsky, 'but before drawing up a plan of campaign and deciding what aims to follow, he has to be clear which side Black will castle on.' White's next move does resolve this point, as it would be dangerous for the king to go to the queenside since White's pawns are ready to storm forward there.

10 a4 0-0



Now was the time when White formulated his plan. As the objective of the first stage of the plan he chose the weak

square at f5, where White wishes to entrench his knight. Romanovsky examined many ways of achieving this but decided on the shortest path of ♘f1-e3-f5. First he must clear the way.

11 g3 ♖ad8 12 ♗g2 ♖fe8 13 ♕e2 ♕e6 14 e4! ♘f8 15 ♖fd1 ♘g6 16 ♘f1!

Now the knight will reach its destination. Should this prove awkward for Black? It is difficult to say, but White's intentions must gain our approval; it is well-known that it is better to follow out a plan consistently, even if it isn't the best one, than to play without a plan at all. The worst thing is to wander about aimlessly.

Vilner decides not to let the knight get to its intended post and removes it from the board. This is also a controversial decision. It is not certain whether it was a good line, but it is certain that Black follows it up with some bad play.

16...♗c5 17 ♘e3 ♗xe3 18 ♕xe3 d4?

Equivalent to suicide. Black deprives himself of counterplay on the queenside and gives White a free hand on the kingside as well.

19 ♕e2 ♘d7 20 ♖f1 ♕d6 21 ♗a3 c5?

Another awful move. White provoked this advance so as to 'freeze' Black's queenside once and for all, and Black should try to avoid this at all costs. so as to keep the chance of penetrating with his queen along the dark squares.

22 ♖ae1 ♘b8 23 ♗c1 ♘c6 24 f4 f6 25 f5

As becomes clear later on, White should have delayed this move and played 25 ♕h5 so as to keep the enemy king on the kingside. Now, however, in accordance with the rules

of defending such attacks, he flees to the other side of the board.

25...♘f8 26 g4?

Here too 26 ♕h5 was stronger.

26...♔f7 27 g5 ♔e7 28 ♖f3 ♔d7 29 ♖g3 ♔c8 30 gxf6 gxf6 31 ♗f3 ♘d7 32 ♕g2 a5 33 ♗h5 ♖e7 34 ♗h6 ♘b6 35 ♖g8

It is not hard to see that Black's weak play and complete passivity have left him with a hopeless game. White's heavy pieces and then his bishops penetrate Black's position.

35...♖c7 36 ♖d1!

Discouraging any counter play by ...c4. Romanovsky plays this part of the game, just as in the build-up of pressure, with great mastery.

36...♔b8 37 ♖d2 ♔a7 38 ♕g3 ♘b4 39 ♖g2 ♘c8

Black should have exploited White's temporary lapse and played ...c4.

40 ♕f2 ♘c6 41 ♖2g3 ♔a6 42 ♕g2 ♖cd7 43 ♗e8 ♖c7 44 ♗f8! ♘6e7 45 ♗f7 ♖b6 46 ♗xe7 ♖xe7 47 ♖xd8 ♕xd8 48 ♖g8 ♕c7 49 ♗e6 ♘a7 50 h4 ♘c6 51 h5 ♔a7 52 h6 ♘d8 53 ♗d5

It was more accurate to play 53 ♗c4. Now Black launches a desperate counter-attack.

53...♘f7! 54 ♕g7 ♕b6 55 ♗xf7 ♕b4 56 ♕xf6 ♕e1+ 57 ♔h2 ♕f2+ 58 ♖g2 ♕f4+ 59 ♔h3 ♕f3+ 60 ♖g3 ♕h1+ 61 ♔g4 ♕d1+ 62 ♔h4 ♕h1+ 63 ♔g5 ♕c1+ 64 ♔h5 ♕h1+ 65 ♕h4 1-0

Having described the course the game took and his own thinking at the time of the game, Romanovsky writes: 'The last conclusion to be drawn and the main one is as follows.

In every game we ought to have a single basic plan, and by carrying out this plan we ought to get a prolonged initiative. The initiative so gained will tend to increase until it reaches the stage where it is sufficient to force a win.'

He then asks, 'Should we say that in the Vilner game several plans were carried out?' and answers himself, 'Certainly not!'

My own reaction was immense admiration. Everything foreseen and planned from the first move to the last. What unity of purpose and what concentrated thought. What a fine work of art that game was. As for me, my own games were just episodes, not linked by any plan.

I attempted to start playing in a planned fashion, working out a plan right after the opening to take me into the ending, but for all my efforts and deep thought on the subject I got precisely nowhere! I would envisage a long systematic siege of my opponent's pawn at a3 but suddenly he distracted me completely by tactical complications along the f-file, while when I planned to conduct an attack on the enemy king I found I had to put it off to deal with more pressing enemy threats on the other side of the board.

In other words, I acchieved nothing; my games still consisted of isolated episodes which I feverishly tried to knit together into a harmonious whole. I was disillusioned and cast into the depths of despair. No wonder I finally gave up all my attempts at planning and reverted to tactical analysis and simple intuitive solutions, without any pretension to deep positional thought. It was only much later, when I had grown a great deal in my understanding of the game, that the question of a single plan became clear to me. I am firmly convinced that this problem remains the most unclear of all

the strategic problems of chess, so let us go into it a little farther.

In the Vilner game it was a struggle between unequal sides. White did not meet any real resistance and simply carried out his operation to control the enemy kingside. The lack of opposition makes it easy to understand the execution of a single plan of campaign. However, when you meet a strong, inventive opponent and he counters every one of your intentions, not only by defensive but also by counter-attacking measures, then it is far from simple to carry out a single plan.

What then does a single plan really consist of? I mulled this over a lot, consulted my fellow grandmasters and finally came to the conclusion that the following definition can give some idea of what is involved in the process of planning during an actual game:

'A single plan is the sum total of strategic operations which follow each other in turn and which each carry out an independent idea that arises logically from the demands of a given position.'

That is, there is not just one plan which is drawn up from move one to the last move, but there is a series of little plans. You notice a desirable objective, plan how to achieve that objective, carry out the plan and then repeat the process all over again throughout the game. If your opponent forces you to leave off in the middle, or you yourself decide that the objective is unattainable, then change your plan. Draw up a new plan, have a different objective. If some unexpected move suddenly makes a big change in the position why should you persist in carrying out a plan that does not fit in with the new situation that has arisen? In this case you must, willy-nilly, think about a new plan.

The definition given above is supported by the following quotation from Bronstein: 'Due to Tarrasch an idea grew up that is still prevalent nowadays, the idea that there are the so-called logical games in which one side carries out a logical plan from beginning to end rather like the proof of a theorem in geometry. I do not think that there are such games between opponents of the same strength and the annotator who gives that impression is often the winner of the game who makes out that what happened is what he wanted to happen.'

Hence our opinions coincide. A single plan like the proof of a theorem of Euclid is a very rare occurrence and can be found only in games where, to use the language of football, 'all the play was at one end'. This need not be a game between players of very different playing strength; it could be the case that in this particular game one player is in good form while his opponent fails to give of his best. In the great majority of games we get the clash of small-scale plans, of separate strategic intentions, but this state of affairs does not rule out the possibility that the game has an overall logical framework.

Planlessness Punished

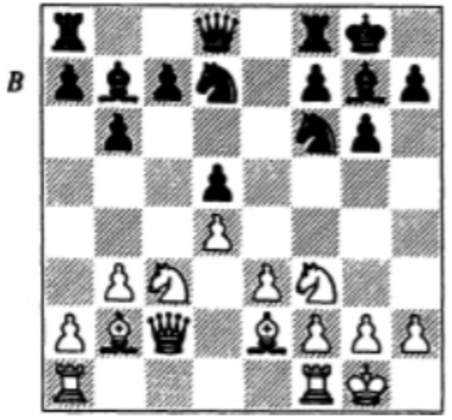
In the following game White played very badly, although Sokolsky is a strong master player. In this particular game he failed to put up any real resistance to his formidable opponent, who from first to last carried out the strategic part of the game and the final attack on the king with an iron consistency.

Unfortunately, it doesn't happen every day that one comes across such co-operative opponents who actively help you to create a unified work of art!

Although the game would appear to fit better in the preceding section, we give it here for a reason that we shall discuss later.

Sokolsky-Botvinnik, Semi-Final 11th USSR Championship, 1939.

1 c4 ♘f6 2 ♘c3 d5 3 d4 g6 4 ♘f3 ♗g7 5 e3 0-0 6 ♗e2 e6 7 0-0 b6 8 cxd5 exd5 9 b3 ♗b7 10 ♗b2 ♘bd7 11 ♕c2



Now Botvinnik makes a comment that is important in considering chess planning: 'It gradually becomes clear that White has no plan and merely concerns himself with developing his pieces. You might have been able to play like that fifty years ago, but nowadays, when every master makes a plan after the first six to eight moves of the game, there is no better way of getting into a cramped and passive position than thinking of development alone.'

From which we draw the two conclusions:

1) A plan is essential.

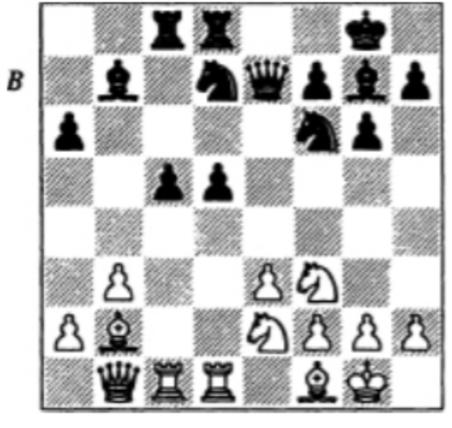
2) Every master makes a plan for the middlegame after the first 6-8 moves. I trust there is no need to labour the point and that the reader will apply this himself in his own games.

Sokolsky continues to play without a plan, and surprisingly makes no effort to keep control of a central outpost.

11...a6 12 ♖ac1 ♖c8 13 ♖fd1 ♕e7 14 ♖b1 fd8 15 ♗f1 c5 16 dxc5

'Yet another positional error. It is not possible to exploit the hanging pawns at c5 and d5 with a large number of minor pieces on the board and by attacking them from the first rank! Meanwhile White parts with his last strong point in the centre – the pawn at d4. This brings Black's b7-bishop to life and the tempo of the game speeds up' (Botvinnik).

16...bxc5 17 ♘e2



Examine this position. Black has an undoubted advantage, but planless play lacking energy could easily dissipate it. Botvinnik now carries out a well-founded plan that arises from the logical demands of the position. It is also a continuation of his strategy in the opening. The plan consists of a direct attack against the opposing king, which is poorly defended by pieces. The main target of his attack will be f2. Botvinnik brings his dark-squared bishop into this attack and so cedes the long dark diagonal to his opponent. However, in this position the diagonal is not needed.

17... ♗h6! 18 ♗a3 ♘g4 19 ♕d3

The threat was 19... ♗xe3 20 fxe3 ♕xe3+.

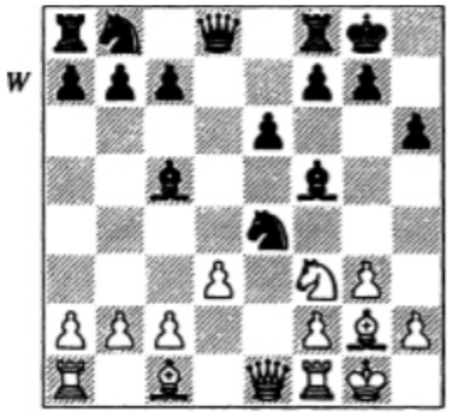
19...♘de5 20 ♘xe5 ♕xe5 21 ♘g3 ♕f6! 22 ♘h1

No choice as f2 was threatened and he also had to defend against 22... ♕h4 23 h3 ♘xe3.

22...d4! 23 ♕e2 ♘e5 24 exd4 cxd4 25 ♖xc8 ♗xc8! 26 ♖e1 d3 27 ♕d1 ♗g4 28 ♕a1 d2 29 ♖xe5 d1♕ 30 ♖e8+ ♖xe8 31 ♕xf6 ♗e2 and White soon resigned.

An interesting parallel to Botvinnik's advice comes in notes by Bronstein to the game Petrosian-Euwe, Zurich Candidates' 1953.

The opening moves were 1 ♘f3 ♘f6 2 g3 d5 3 ♗g2 ♗f5 4 d3 e6 5 ♘bd2 h6 6 0-0 ♗c5 7 ♕e1 0-0 8 e4 dxe4 9 ♘xe4 ♘xe4



Bronstein writes: 'Black's last few moves seem rather inconsistent to me. By move ten Black should not only have formed a plan, but should be sticking to it as well.'

In the commentator's opinion Euwe's moves are lacking in logic. He arranges his pieces and decides his central pawn formation unsys-tematically without subordinating his moves to a single aim. It follows that the pawn exchange was illogical. He should have retreated the bishop to h7, maintaining the tension in the centre. If, however, he had decided to exchange pawns in this way, he should have at least been consistent and followed it up by exchanging his bishop for the white knight at e4.

From this example we can see that in the question of planning not even former world champions are free from fault.

The reader will find it interesting to follow how this lack of system in his play brought Black into an awkward position.

10 dxe4 ♗h7 11 b4 ♗e7 12 ♗b2 ♘a6 13 a3 c6 14 ♖d1 ♕c8 15 c4 ♘c7 16 ♕c3

Now Black's position is critical. His bishop at h7 is shut in, and his remaining pieces are badly placed. We have already noted what badly placed pieces can lead to.

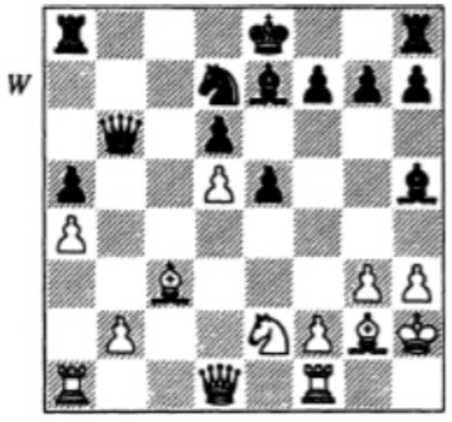
16...♗f6 17 ♘e5 ♖d8 18 ♗f3 ♘e8 19 ♖xd8 ♕xd8 20 ♖d1 ♕c7 21 c5 a5 22 ♗g2 axb4 23 axb4 ♖d8 24 ♖xd8 ♕xd8 25 ♕c2 ♘c7 26 ♗f1 ♘b5 27 f4 ♔f8 28 ♔f2 ♗xe5 29 ♗xe5

Although White has not played especially energetically, his advantage is still big enough to win. He decides matters by an advance of the kingside pawns.

29...f6 30 ♗b2 ♔e7 31 ♗c4 ♗g6 32 ♔e3 ♗f7 33 g4 ♕c7 34 e5 ♕fd8 35 exf6+ gxf6 36 h4 ♘c7 37 ♕c3 ♘d5+ 38 ♗xd5 ♕xd5 39 ♕xf6+ and White won by exploiting his extra pawn and his positional advantage.

From the two opinions quoted, the conclusion must be clear that between moves 6 and 10 you have to draw up a plan for the next stage of the game. This is an important point which must be known and applied, as even very strong players can restrict themselves to playing a series of 'natural' moves. What this leads to can be seen from the next example.

This is from Gligorić-Kotov, Zurich Candidates' 1953.



Bronstein writes: 'White has obtained a definite advantage, and has made all the necessary preparatory moves. Now the moment has come for him to decide the main question of how to win the game.

'Sometimes it is good enough to make the so-called "natural" moves: occupy open lines with your rooks, transfer them to the seventh rank, attack a backward pawn, create a protected passed pawn, advance it to queen … Many games have been duly won by such straightforward means. One reads time and again such comments as "and White by simple (logical, obvious) moves increases his advantage and wins" or "White's attack develops almost of its own volition". However, in our day, with the noticeable improvement in the technique of defence, it is hard to count on a game imitating a faithful horse and finding its own way to the right destination.

'When you play against an experienced opponent, who exploits all the defensive resources at his command, you sometimes have to walk time and again along the narrow path of "the only move".' In the diagram position White had to find a continuation which would maintain his initiative. The line which best met the demands of the position was 18 g4 ♗g6 19 f4 when Black has the far from easy choice to make between 19…exf4 20 ♗xg7 ♖g8 21 ♗d4 with

domination and 19...f6 20 f5 ♗f7 21 ♘g3 followed by growing pressure on the kingside, where the black king must castle.

Thus one thing was required of White – to make a plan arising from the demands of the position and stick to it. Instead Gligorić plays from move to move and finally lets Black take the initiative.

18 f4 ♗xe2 19 ♕xe2 ♗f6 20 ♕c4 0-0 21 ♕c6 ♖fd8 22 ♖ae1 ♕b8 23 ♖b1 ♖a7 24 ♕c4 ♗c8 25 ♕e4 ♕b3 26 fxe5 ♗xe5 27 ♕f5 ♖f8 28 ♕f2

'All White's advantage has been dissipated on such one-move threats,' remarks Bronstein at this point.

28...♖aa8 29 ♕f5 ♕xa4 30 ♖f4 ♗xf4 31 gxf4 g6 and White resigned a few moves later.

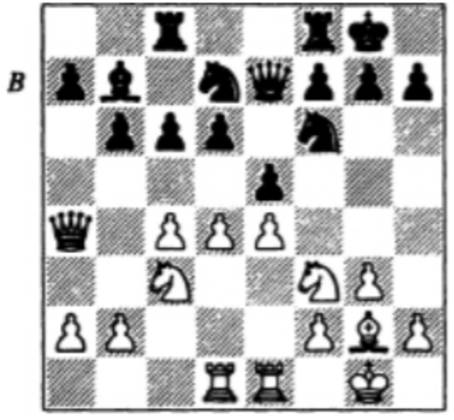
Be Flexible

We have explained that right after the opening you should draw up a plan; not a single plan for the whole game, as this is impossible in practice, but a definite strategic idea, a short plan to achieve a concrete objective.

In almost every position there are several such plans – which is one of the delights of chess. A grandmaster is not limited by the presence of one and only one possible decision (unless it is a position with a forced tactical variation). He has freedom of choice.

This also implies creative freedom as it is on the plan that the unity and beauty of the game depends. If you choose a good plan then you increase your chances of not only winning the game but also of winning prettily and so creating a work of art.

Let us say straightaway that the choice of a plan is no easy task. Decisive factors in this choice are your knowledge, your experience and your talent. The choice is a creative process demanding imagination, sober calculation, inventive thought and an exact note of the special features of the position.



Assessing this position which arose after White's 14 ♕c2-a4 in Reshevsky-Keres, Semmering 1937, Keres writes: 'White finally has to decide on a concrete plan. His manoeuvre on the queenside turns out to be misguided and at best is just a waste of time. Yet White had no less than three good plans at his disposal, each of which would pose difficult problems for Black.

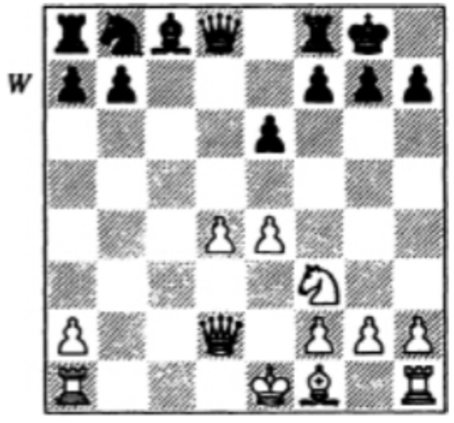
First of all 14 b4 is worth considering. White's intention would be to follow up with 15 ♕b3 and a general pawn advance on the queenside. Black would find it difficult to defend because of his passively placed pieces.

Secondly, a very strong line is 14 ♘h4 g6 15 ♕d2! intending to transfer the queen to the kingside and, when feasible, to play f4.

Thirdly, it was quite a good idea to double rooks on the d-file and follow up by ♗h3.'

Note that, from the point of view of a grandmaster, there were three quite different plans in this position. There was play on the queenside, on the kingside or in the centre. This gives an idea of the scope that exists in chess and how the choice is a matter of taste or artistic preference. So the conclusion to be drawn is clear. You have to play according to a plan, but exactly which plan to choose is entirely your prerogative.

Keres made the same sort of comment about his game with Fine (Black) in the Ostend Tournament of 1937, after the first 10 opening moves which were: 1 ♕f3 d5 2 d4 ♘f6 3 c4 e6 4 ♘c3 c5 5 cxd5 ♘xd5 6 e4 ♘xc3 7 bxc3 cxd4 8 cxd4 ♗b4+ 9 ♗d2 ♗xd2+ 10 ♕xd2 0-0



'White has the choice of two positionally well-founded plans. He can try to exploit his advantage in the centre by playing for the advance d5 which would give him a strong passed pawn, or he could concentrate his pieces for an attack on the enemy king. It is hard to say which variation gives the better winning chances, so for the next few moves it is advisable to keep the two options open. As 11 ♗c4 is a useful move in both cases it seems to me more logical than the

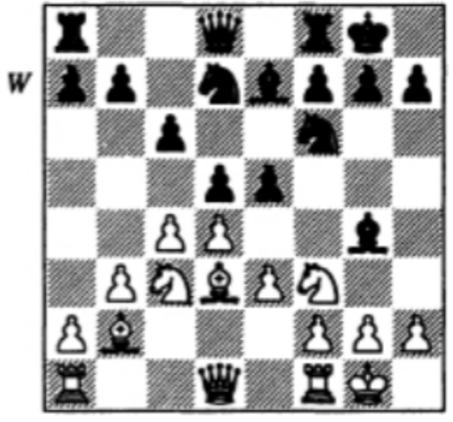
alternatives which have been played here, namely 11 ♗e2 and 11 ♗d3.'

Here again White had a choice and he preferred to leave both possibilities open so as to be able to choose the better one later in the game. Such decisions take up a lot of time as the choice of plan is crucial and all one's subsequent play will depend on the one chosen.

In considering the contribution of the 1953 Zurich Candidates' Tournament to a new approach to strategy and tactics, Bronstein wrote in the tournament book: 'There is one feature of modern chess which the reader will notice again and again in the games of this tournament – the readiness of players to react quickly to a change of plan by the opponent by changing their own plan.' The harm that can result from sticking stubbornly to the wrong plan is shown by the following example:

This is Bondarevsky-Botvinnik, Match Tournament for the title of Absolute Soviet Champion, 1941.

Bondarevsky examined carefully all the various possibilities of opening up the centre and came to the conclusion that they were not in his favour. He then decided to let the pawn advance to e4 so as to undermine it later by f2-f3. This plan is quite feasible and in accordance with the demands of the position.



The game continued:

10 ♗e2 e4 11 ♘d2 ♗xe2 12 ♕xe2 ♗b4

There was already a threat of f3, so Botvinnik hurries to counter it.

13 a3 ♗xc3 14 ♗c3 ♖e8 13 f3

Now Botvinnik comments: 'It is very annoying at times to depart from one's plans. As early as move ten, when he played ♗e2, White intended to undermine the pawn by f3 if it should come on to e4. However, Black has prepared for this undermining move and defended so well that White now has no chance of gaining an advantage by exchanging in the centre.

Hence White should abandon his initial plan and play 15 f4 threatening f5. It is possible that Black would avoid this and answer 15…exf3 16 gxf3 ♘f8 with about a level game. Now, however, seeing that White has chosen the wrong line, Black does not exchange pawns.'

A very valuable observation! We have already said that it is better to play according to a plan that is not the best available than play without a plan at all. On the other hand, it is important to ensure that the plan chosen does not suddenly prove to go against the demands of the current position. You must know how to 'tack' about and how to change your plan in good time – otherwise it might all finish up badly for you.

In this particular case stubborn adherence to a faulty plan leads to catastrophe for White.

15…♘f8 16 ♖f2 ♕d7 17 ♖af1 exf3

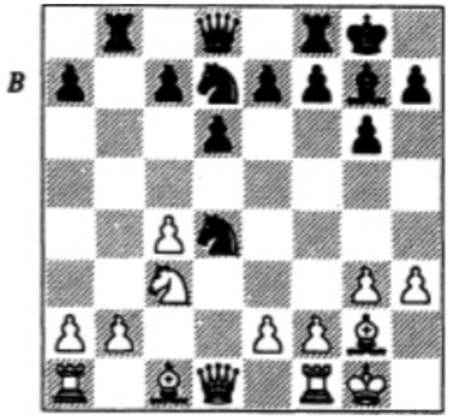
Played at the right moment. White has to recapture with the rook as 18 gxf3 ♘g6 19 ♕d3 ♕e6 lets Black win a pawn.

18 ♗xf3 ♖e6 19 ♕d3 ♖ae8 20 ♘b1 ♘g6 21 ♗e1 dxc4 22 ♕xc4 ♖xe3 and Black won.

The next two games also show what the wrong plan can lead to. They both came from the same opening variation.

In the first game, Najdorf-Petrosian, Zurich Candidates' 1953, the following position arose (*D*).

Black now played 12...c5 and Bronstein's comment on this is: 'A serious positional mistake whose significance the reader can realise from the following considerations: Black has an open file on the queenside and can provoke b3, whereupon his plan must be to attack b3 by advancing his a-pawn. This attack has prospects of succeeding if Black can support his pawn when it gets to a4. What is he to support it with? He has no light-squared bishop, and the square c5 has been taken away from his knight by his last move. Moreover, it is clear that Black will not be able to maintain his knight on d4 forever. Hence he is now left without any promising plan.



In fact White soon took over the initiative and won with surprising ease. That is what Black's incorrect choice of plan led to.

13 e3 ♘e6 14 ♕c2 a5 15 ♗d2 ♘e5 16 b3 ♕d7 17 ♔h2 ♘c6 18 ♖ad1 ♘ed8 19 ♗e1 ♔h8

Black is running on the spot. He has no useful moves, and, unable to form a constructive plan, he has to wait passively to see what White will do. It is no new experience for Najdorf to attack the enemy king and he plans to do this by the logical sequence ♘a4, ♗c3, exchange bishops, f4, ♗f3, ♔g2, advance the h-pawn and ♖h1 and so on.

20 ♘a4 ♕c8 21 ♗c3 ♗xc3 22 ♘xc3 ♕f5

A break in the logical course of events. Black tries to mollify his opponent's wrath by offering a pawn.

23 ♕xf5 gxf5 24 ♖d5 ♘e6 25 ♖xf5 and Black soon resigned.

Twenty rounds later the same position arose again, this time between Najdorf and Geller. Geller handled the black side in a much more accurate and confident fashion. He left the c5-square free for his knight, and curiously enough this time it was White who soon found himself in serious trouble.

12...♖b4! 13 e3 ♘e6 14 ♕e2 ♘e5! 15 f4 ♘d7 16 ♘d5 2b8 (Black's pieces have been driven back, but only temporarily; his position is basically sound and temporary retreats and problems cannot trouble such a position) 17 ♕c2 c6 18 ♘c3 ♕c7 19 ♖b1 a5 20 ♗d2 ♘ec5 21 ♘e2 ♕b6 22 ♔h2 ♗fc8 23 ♗c3 ♗xc3 24 ♘xc3 ♕a6 (all with the same aim of inducing White to play b3; however, 24...♕b4 is stronger as it brings the queen nearer to the place where the decisive play will be) 25 b3 ♖b7 26 ♘e4 ♘xe4 27 ♕xe4 ♖e8 (27...e6 28 g4 d5! is stronger) 28 f5 ♘e5 29 f6! ♕a7 30 ♖bd1 ♖b4 31 ♕d4 c5 32 ♕h4 (he could cause more trouble by 32 ♕f4; now Black wins quickly) 32...a4 33 ♖xd6 axb3 34 axb3 ♗xb3 35 fxe7 ♕xe7 36 ♕xe7 ♗xe7 37 ♗d5 ♖xe3 38 ♖d8+ ♔g7 39 ♖c8 ♘d3 40 ♖a8 ♖e2+ 41 ♔g1 ♖d2 42 ♖aa1 ♘b4 0-1.

What is it that suggests to a grandmaster the plan he ought to adopt, and in what circumstances to make a quick change? The answer can only be that a deep painstaking assessment of the position is always the correct guide. If a position is assessed correctly then we shall choose the right direction in which to proceed. If we see that a move that we have made, or even a whole series of moves, does not meet the requirements of the position, we are obliged to alter our plan. It is in this ability to recognise where a change of course is needed that we see the all-round competence of a grandmaster, and his ability to be flexible in accordance with the requirements of the position.

The Centre

One factor is always present in all a grandmaster does. He always takes account of it when planning for the immediate or the distant future. This factor is the pawn formation in the centre. The method of play to be adopted depends crucially on this pawn formation and we shall consider the various types of central formation and advise on the appropriate method of play for each.

Closed Centre

In a number of variations of the Ruy Lopez, Nimzo-Indian Defence and King's Indian Defence the central pawns are blocked so that no centre pawn can easily advance. Then we have a closed centre, with an absence of open lines or long diagonals. Nor can pieces occupy central squares.

What do we do in that case? What plan should be chosen? As central play is ruled out, the main activity is naturally transferred to the wings. Each side tries to advance on one

side of the board and aims to open files and encircle the enemy army.

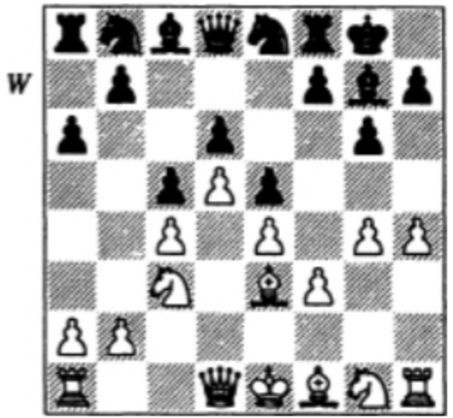
Depending upon whether we are the attacking or the defending side we devise a plan of the following sort:

Active plan. The plan is to organise pressure on the wing where one has the advantage. In the majority of cases a massive pawn advance is undertaken, since with the centre closed the baring of one's own king position is not very risky. The main feature is that the defender cannot play what is normally the most powerful counter to a flank attack – a line opening in the centre.

Defensive plan. This consists of setting up barriers to the enemy advance in the hope of slowing him down so as to get in first with a counter on the other wing.

In positions of this type, the main question is who will get home first with his attack. Moreover, both sides must always be on the lookout for a possible central strike, always the best answer to wing play.

A typical example of play in such positions is Kotov-Spassky, 25th USSR Championship, Riga 1958.



It is not hard to guess that the position arose from a King's Indian Defence. The centre is closed, so both sides prepare to

attack violently on the wings. Who will get in first, White on the kingside or Black on the queenside? Clearly in such cases it is impossible to take things slowly.

10 ♗d3 b5

Spassky does not count the cost in pawns, but White too is not interested in getting a material advantage. In such positions one must not allow the opponent to open lines on the side where he is attacking.

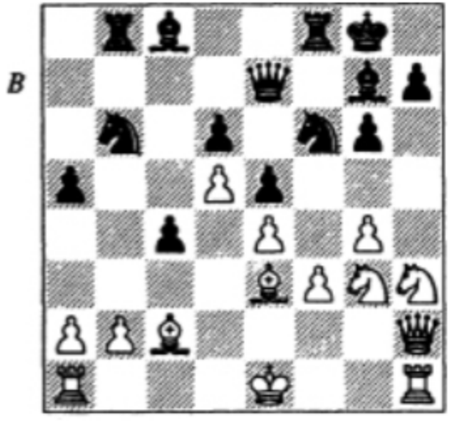
11 ♕d2 bxc4 12 ♗xc4

White fails to stick to his guns. 12 ♗c2 would have obstructed Black's queenside counterplay, whereas now Spassky gets the chance to make the central strike which the wing attacker fears so much.

12...♘d7 13 h5 ♘b6 14 ♗d3 a5 15 hxg6 fxg6 16 ♕h2 ♘f6 17 ♘h3 ♕e7 18 ♘e2

White clearly underestimates the activity of Black's pieces and those tactical possibilities open to Black's lurking fianchettoed bishop and major pieces. The safest line was 18 ♔d2 and 19 ♖ag1 but to be honest I was let down here by my excessive optimism and the absence of a feeling of danger.

18...♖b8 19 ♘g3 c4 20 ♗x2



20...♘bxd5!

An excellent knight sacrifice opening the centre and giving Black a decisive initiative.

21 exd5 ♖xb2 22 ♘g5

Now Spassky could finish off his fine plan by 22...e4! when the black pieces, all now fully active, would quickly decide the game. Instead he let White seize the initiative back again:

22...h6? 23 ♘5e4 ♘xd5 24 ♗xh6

Just one move later Black made a decisive mistake.

24...♘b4 25 ♗g5 ♕c7? 26 ♕h7+ ♔f7 27 ♗h6! and White won.

Open Centre

When the area in front of an army has no physical obstacles such as rivers or foothills, and an open expanse of plain allows one to see far into the distance, there are no obstacles to an advance on a wide front and at a quick pace.

Just the same applies in chess. When the centre is free of pawns, the role of the pieces is greater. Now the main factor in an attack is not undermining moves made by pawns, but the attacking power of the pieces. The battle often involves hand-to-hand fighting, with all the pieces involved in close contact.

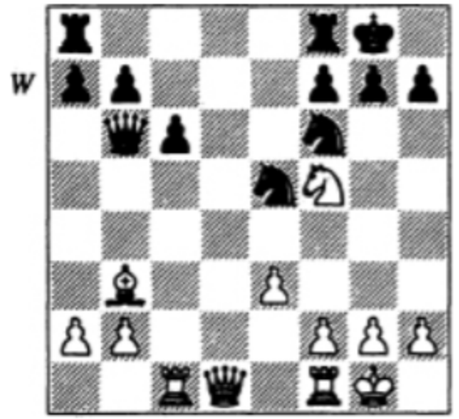
In such a struggle it is not hard to see what plans arise:

The active side tries to use his pieces to provoke weaknesses in the enemy camp, and then attacks these weaknesses. Pawn storms are not normally undertaken, as with an open centre the risk of weakening one's own position is great.

The defending side tries to repulse the attack and avoids, as far as is possible, the creation of weaknesses.

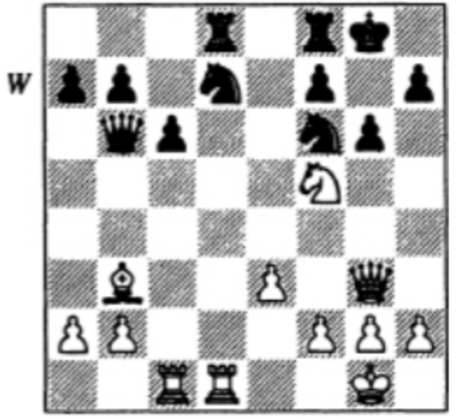
A classic example of a piece attack with an open centre is provided by the finish of the game Alekhine-Lasker, Zurich 1934.

There are no pawns in the centre, and the pieces of both sides rejoice in the wide scope that this provides.



White has more justification for this jubilation as his pieces are more actively placed and can combine for an immediate attack on the enemy king. As Black has no noticeable weaknesses at the moment, the correct method is not easy to see, but by a series of exact moves Alekhine soon provokes such weak points in the pawns around the black king.

18 ♕d6 ♘ed7 (few players would like the look of 18…♘g6 19 ♘h6+ gxh6 20 ♕xf6) 19 ♖fd1 ♖ad8 20 ♕g3 g6 (the first weakness; now Alekhine provokes a fresh one)



21 ♕g5! ♔h8 (Black takes timely measures against the double threat of ♖d4-h4 and the simple doubling of rooks on the d-file by ♖d6) 22 ♘d6 ♔g7 23 e4! ♘g8 24 ♖d3 f6 (this permits a striking finish, but Black had no good defence; the best move 24...h6 would be met by 25 ♘f5+ ♔h7 26 ♘xh6 f6 27 ♘f5!! fxg5 28 ♖h3+ ♘h6 29 ♖xh6 #) 25 ♘f5+ ♔h8 26 ♕xg6!! 1-0.

Mobile Centre

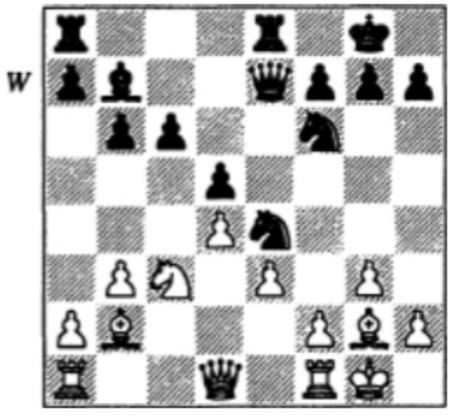
From his first steps in learning the game, a player is familiar with this type of centre. In the Giuoco Piano, King's Gambit and Evans Gambit, White often gets centre pawns at d4 and e4, sometimes at the cost of sacrificing a pawn. In many modern openings, such as the Grünfeld Defence, White gets two or more mobile pawns in the centre, while Black has only one centre pawn on his third or even second rank to counterbalance or block the white pawns.

In such situations, all the players' attention is focused on this mobile centre and their plans are all based upon advancing or stopping these pawns.

The active side who occupies the centre with his pawns tries (except when his pawns are weak and have to be defended) to advance these pawns and get one or two passed pawns in the centre, which are capable of deciding the game in his favour. However, this ideal state of affairs cannot always be achieved, and more frequently the pawns help to drive away enemy pieces from the centre and so enable battle to be joined in a decisive fashion on one side of the board.

The defending plan is to try to stop the enemy pawns by blocking them. This is the first aim and after that comes the undermining of the enemy centre and its destruction. As a rule the defending side cannot organise a counter-attack on the flank as the enemy pawn centre hinders this. The whole of the defender's attention has to be concentrated on the centre.

A good example of the pros and cons of a central pawn advance is seen in the game Konstantinopolsky-Kotov, Semi-Final 14th USSR Championship, Baku 1945.



White has the simple plan of advancing his central pawns by f3 and e4. Supported by his bishops, these pawns could easily sweep away all Black's resistance if they get well forward. Black does all he can to hold them back and then to blockade them, possibly even to destroy them later. A sharp struggle develops round the advance e4.

1 ♖e1 ♗c8 2 f3 ♘xc3 3 ♗xc3 ♗f5 4 ♕d2 h5

Black uses this pawn as part of the defence, to rule out the move g4, which could be useful for White in some variations.

Moreover, Black might get the chance to strike a blow on his own behalf by ...h4.

5 ♖e2 ♕d7!

Preparing new defensive fortifications. Black realised that he would not be able to hold up e4 forever, but that he must not allow the pawns to keep on advancing. Therefore he prepares to stop them by defending the d5- and e6-squares, which White cannot control. Because both these squares are light squares, Black's main task now is to exchange light-squared bishops.

6 ♖ae1 ♗h3 7 ♗h1 ♖e6 8 e4 dxe4 9 fxe4 ♖ae8 10 ♗f3 ♗g4 11 ♕f4 ♗xf3 12 ♕xf3 ♕e7 13 e5

Forced, but after 13...♘d5 Black has achieved his aim of stopping the pawns and safely blockading them. What follows is the creation of pressure on these pawns and their destruction. It is a process that lasted many moves and is not of great interest in a section devoted to the centre.

There are many examples of this fight for and against the pawn centre. We might mention in particular the games Reshevsky-Botvinnik, AVRO Tournament 1938 and Kotov-Unzicker, Stockholm Interzonal 1952.

Fixed Centre

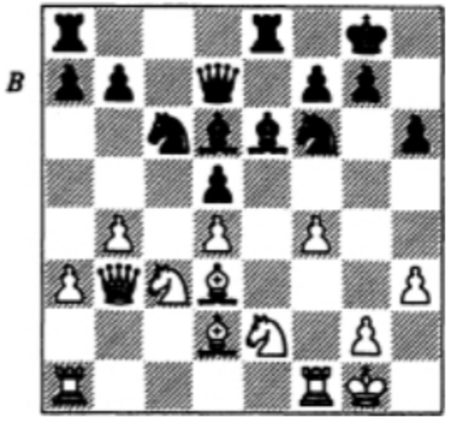
If the centre has taken on a fixed form then the subsequent play revolves around the central points, on which each side seeks to establish his pieces. Only when enough centralisation has been achieved do the players undertake play on the wings.

In fixed centre positions it is difficult to speak of active and passive plans, as it is more difficult to decide who has

the better position. The play involves manoeuvring to a considerable extent, and the only certain thing is that each side must pay great attention to the central squares so as to entrench his own pieces there and expel those of his opponent.

Botvinnik plays such positions accurately and with great power. Note the iron logic with which he made use of strong central squares in his game against Stolberg (White) in the 12th USSR Championship, Moscow 1940.

White has strong squares at e5 and c5, Black at e4 and c4. Who will be first in the fight to control and occupy these squares? It becomes apparent that Botvinnik is the better prepared for this contest and with his next move he tries to provoke an exchange of light-squared bishops so that White will not be able to defend the squares on c4 and e4.



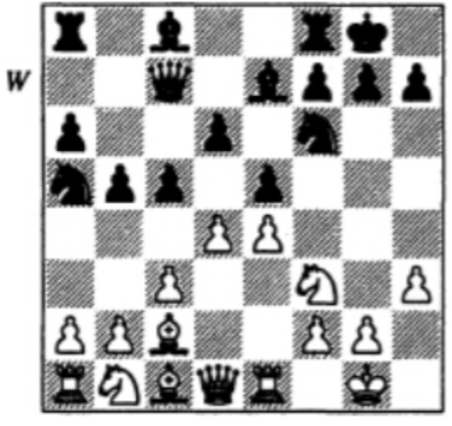
1...♗f5! 2 ♕c2 ♗e4 3 b5 (the young master does not defend accurately, and lets Black take control of c4 as well as e4; 3 ♖ad1 was a better move) 3...♗xd3 4 ♕xd3 ♘a5 5 ♘g3 (Black has strong pressure after 5 ♘xd5 ♘xd5 6 ♗xa5 ♖e3) 5...♘c4 6 ♗c1 ♖ac8 7 ♖a2 ♗f8 8 a4 ♗b4 (all Black's efforts are directed towards destroying the defenders of e4; the logical play which Botvinnik demonstrates is simple and laconic, but at the same time has immense power as his manoeuvres are closely linked to the requirements of the

position) 9 ♘d1 ♘e4 10 f5 ♘xg3 11 ♕xg3 ♗d6 12 ♕f3 ♗e7 13 ♕g3 ♗f6 14 ♗xh6 ♗xd4+ 15 ♔h1 f6! (assessing this position from the point of view of central control, one cannot but be struck by Black's complete dominance of this part of the board; such dominance must weigh heavily in the fight for control of the whole board and Botvinnik soon breaks down White's final resistance) 16 ♗c1 ♖e4 17 ♕d3 ♘e5 18 ♕b1 ♖c4! (the weak squares e4 and c4 serve as jumping-off points for all Black's pieces, and he keeps on using them to strengthen his pressure) 19 a5 ♗c5 20 b6 a6 21 ♘b2 ♖c3 22 ♗d2 ♖b3 23 ♕c2 ♕b5 24 ♖c1 ♗f8 25 ♖d1 ♖e2 (making his way across the central squares right into the heart of the enemy position – that is the result of the correct strategic play by Botvinnik; it is time for White to resign) 26 ♕c1 ♖xh3+ 27 gxh3 d4 0-1.

Tension in the Centre

If the pawn formation in the centre has not yet taken on a definite shape, then the game can easily resolve itself into one of the four types we have been considering up to now. With tension in the centre the player's attention must be concentrated as never before on the centre. The aim of each side must be to achieve the sort of stabilised centre which is favourable to him and to impose on his opponent an unfavourable pawn formation. It can happen that one side is unable to force a clarification of the position in the centre and is reduced to attacking on the wing. However, even in this case the possibility of a counter-attack in the centre has to be constantly reckoned with. Such a counter, delivered at the right time, can instantly reduce all flank attacks to nothing.

Here is an example of how a tense centre suddenly became an open centre and caused the pieces of both sides to clash in a hand-to-hand fight.



This is Boleslavsky-Keres, Candidates' Tournament, Zurich 1953. At the moment there is tension in the centre and the pawn formation can change at any moment into one of the types mentioned previously.

12 ♘bd2 ♖d8 13 ♘f1 d5 14 exd5 exd4 15 cxd4 ♘xd5 16 ♕e2 ♗b7 17 ♘g3 cxd4 18 ♘xd4

A whirlwind of exchanges has carried all the centre pawns away, and the centre is now open for piece activity with all the plans that can arise from that.

18...g6!

Keres does not let a white knight occupy the important f5-square because it is uncomfortably near his king.

19 ♗h6 ♗f6 20 ♘b3 ♘c4 21 ♘e4 ♗xb2

Black gets the advantage very early after the change in the centre's nature. The conclusion must be that Black has a favourable disposition of forces for this open centre and that White should have played for another type of centre formation.

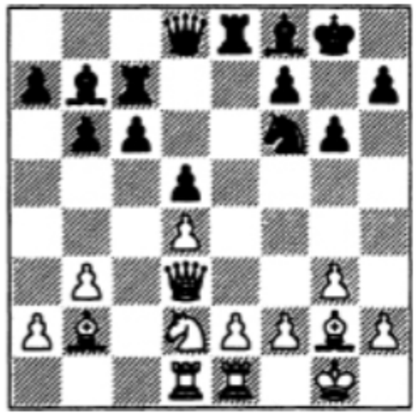
22 ♘bcc5 ♗xa1 23 ♖xa1 f5!

An attacking move that Black foresaw a number of moves ago. It enables him to force a series of exchanges.

24 ♘xb7 ♕xb7 25 ♘c5 ♕c6 26 ♘d3 ♘c3 27 ♕e1 ♕f6 28 f4 ♘e4 29 ♔h2 ♕c3 30 ♕b1 ♘cd2 31 ♕c1 ♖xd3 32 ♗xd3 ♕xd3 33 ♕c7 ♘f3+! 0-1 as 34 gxf3 is met by 34...♕e2+ and mate in three.

Countless games with tension in the centre can be found in modern tournament games. One could even go farther and say that in every game there is to some extent a fight, right from the opening moves, to form an advantageous centre. The ability to come out on top in this struggle is a fine art. Once we have chosen the right formation in the centre we have created opportunities for our pieces and laid the foundation of subsequent victory.

Exercises



In this position White, who was to move, chose an incorrect plan for forming a type of centre and so handed the initiative to his opponent. What was his correct plan?

White's task here is to advance his centre pawns. What plan of placing his pieces on the right squares enables him to force this advance? It is White to move.

21
W

The correct solution of the problem of the centre will allow White to obtain a decisive initiative. In what way does he achieve this?

We have now dealt with the three fundamental elements which constitute mastery of the game of chess: these are analysis of variations, positional assessment and planning. In the last part of the book we will go on to examine the important subject of endgame technique and try to deal with the many separate features of the struggle over the board. Finally we give some practical advice culled from decades of tournament practice and from conversations with some of the world's strongest players.

4 The Ending

The final part of the game is marked by a large number of special features. The ability to play the ending well is a mark of the good player, and it is no accident that all the world champions have been noted for this ability. The reader's own experience has probably already convinced him that he ought to devote serious attention to the technique of playing positions with comparatively little material on the board.

To master the ending two qualities are needed. First of all, you have to know backwards a large number of elementary endgame positions such as rook and pawn against rook. The only thing that can help here is deep study. Sometimes you have to solve problems at the board that would baffle very strong players, if they had to start from scratch and had not already spent many hours mastering such positions.

Secondly one has to know that the ending has its own special criteria for finding the best moves and the right plan; we shall deal with these specific features later.

In the thirties I had to do an immense amount of work on classifying minor piece endings and rook and pawn endings, so much so that I filled several thick exercise books with the work. Nowadays the student finds it much easier as he has access to the five-volume work under the general editorship of Averbakh, which is a very great help in studying all types of endings. Having referred the reader to these books we shall not deal with endings that have been studied in detail,

but will go on to consider the particular qualities you should try to develop in order to play the ending well.

Roughly 30 years ago I heard Grandmaster Levenfish say in conversation about a young player, 'He is a good player, but he plays simple positions badly'. I did not quite understand what he meant by 'simple' positions. Clearly he was not talking about elementary positions which have been thoroughly classified. Something else of real significance was involved.

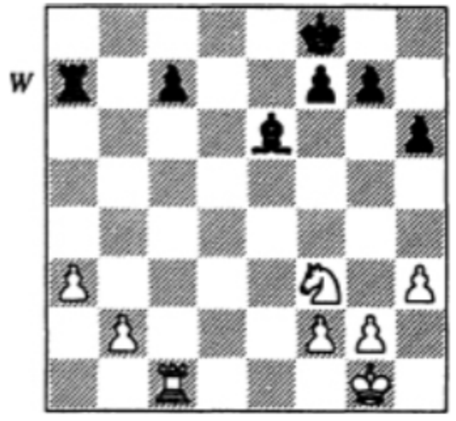
Later I got to know what Levenfish had in mind. When queens are exchanged and the amount of material left on the board is much reduced, then one gets the so-called simple positions, which are not so simple at all. They may still contain some middlegame features but are mainly of an endgame nature.

Another digression seems relevant. Once in a lobby of the Hall of Columns of the Trade Union Centre in Moscow a group of masters were analysing an ending. They could not find the right way to go about things and there was a lot of arguing about it. Suddenly Capablanca came into the room. He was always fond of walking about when it was his opponent's turn to move. Learning the reason for the dispute the Cuban bent down to look at the position, said, 'Si, si,' and suddenly redistributed the pieces all over the board to show what the correct formation was for the side that was trying to win. I haven't exaggerated at all. Don Jose literally pushed the pieces round the board without making moves. He just put them in fresh positions where he thought they were needed.

Suddenly everything became clear to us. The correct scheme of things had been set up and now the win was not

difficult. We were delighted by Capablanca's mastery, and soon had further evidence of the need to think schematically about the ending.

In the bulletin of the 1936 Moscow Tournament there appeared Capablanca's game with Ragozin. In the diagram position Capablanca again drew up a winning scheme, namely ♔ on e3, ♖ on c3, ♘ on d4 and ♙ on b4. Separate moves did not interest him as much as the necessary scheme, and in the subsequent play everything went as he had planned.



33 ♘d4 ♖b7 34 b4 ♗d7 35 f4 ♔e7 36 ♔f2 ♖a7 37 ♖c3 ♔d6 38 ♖d3 ♔e7 39 ♔e3 ♖a4 40 ♖c3 ♔d6 41 ♖d3 ♔e7 42 ♖c3 ♔d6 43 ♘e2 (now White intends a new regrouping of his forces so as to ensure the further advance of his queenside pawns; for this purpose his knight has to be on c3) 43...g6 44 ♖d3+ ♔e6 45 ♔d4 ♖a6 46 ♖e3+ ♔d6 47 ♘c3 f5 48 b5 ♖a8 49 ♔c4 ♗e6+ 50 ♔b4 c5+ 51 bxc6 ♗g8 52 ♘b5+ ♔xc6 53 ♖d3 (now all the black pawns fall and White easily exploits his advantage) 53...g5 54 ♖d6+ ♔b7 55 fxg5 hxg5 56 ♖g6 ♖

f8 57 ♖xg5 f4 58 ♘d4 ♖c8 59 ♖g7+ ♔b6 60 ♖g6+ ♔b7 61 ♘b5 ♖f8 62 ♘d6+ ♔b8 63 h4 1-0.

Ever since then I have watched carefully how the great endgame players handle, or rather, regard the ending. I gained a great deal from my friendship with Sergei Belavenets. Just before the war we jointly wrote a study of the middlegame and ending, but it was subsequently lost in typescript. I saw how Belavenets always thought about the ending in terms of schemes, in terms of the layout of one's forces. Later I noticed the same type of thinking in the great modern endgame masters Flohr and Smyslov.

There is another characteristic feature to which I would like to draw the reader's attention. You will already have noticed how often Capablanca repeated moves, often returning to positions which he had had before. This is not lack of decisiveness or slowness, but the employment of a fundamental endgame principle which is 'Do not hurry'.

Belavenets wrote of it this way: 'The basic rule of endings is not to hurry. If you have the chance to advance a pawn one square or two, then first of all advance only one square, have a good look round, and only then play it forward one more square. Repeating moves in an ending can be very useful. Apart from the obvious gain of time on the clock, one notices that the side with the advantage gains psychological benefit. The defender, who has the inferior position, often cannot stand the strain and makes new concessions, so easing his opponent's task. Apart from this, repetitions clarify the position in your mind to the greatest possible extent.'

Hence the two characteristic features of the ending are thinking in terms of schemes and lack of undue haste. Remember these and be sure to follow the example of the endgame virtuosi.

In the sharp clashes of the middlegame a player gets tuned up to a fine pitch and is used to analysing complicated variations and looking for tactical strokes. As soon as the ending is reached you should think much less about tactics. A new phase of the game is starting and it is quite different from the previous one. Here you have to think of schemes and deal in terms of cool, calm analysis.

'I advise every player, if he has enough time left on his clock, to spend a few minutes calming his nerves after the excitement of the middlegame,' writes Belavenets. 'This slight expenditure of time will be recouped later on when the player thinks about the ending in the right way.'

In 1950 Smyslov and I went to Venice to play in the international tournament there. We were accompanied by the experienced master Makogonov, and I shall never forget the advice he gave us before the game: 'Don't try to complicate. Why should you? Exchange queens and leave a rook and two or three minor pieces on the board. Then you're sure to win. There are few modern players who know which pieces to exchange and which to leave on the board. They understand tactics, but in the transposition to the ending you are their superiors.'

Which pieces to exchange, and which to leave on? There is a very important problem in the ending, whose solution depends both on a player's ability and his knowledge of the innumerable types of minor pieces endings which can turn up towards the end of a game. When is a bishop stronger than a knight, and when is the reverse the case? When is it better to have rooks on with knights in the ending and when is it better to exchange rooks and leave knights only? The answers to these and similar problems are given by practice

and deep analysis of the whole body of endgame lore handed down to us by the best endgame practitioners.

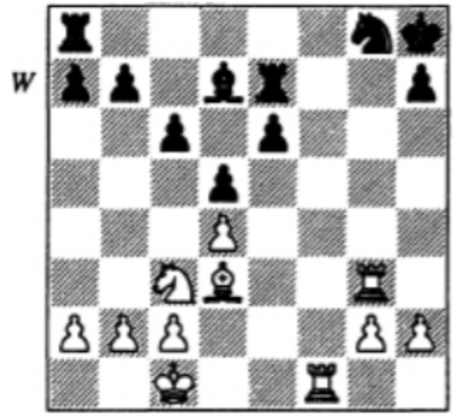
Before giving some examples that played a big part in my own education as a player, let us deal with one other point with which the reader must already be familiar.

In the ending, don't forget to bring your king closer to the centre. We all know how the king, which is a defensive piece in the middlegame, suddenly becomes very bold in the ending. We simply must bring it up to the centre and have it working in the thick of things. Unfortunately, we often get engrossed in what the other pieces are doing and forget about the king. So remember that, as soon as you get the slightest breathing space, you should advance your king towards the centre. At the time, moving the king may seem to have no particular point. Never mind – bring it into play just as a precaution. If you study the classic examples of endgame play, you will see how the king was brought up as soon as possible even though there seemed no particular hurry at the time.

Three examples of endgames made a very great impression on me and when I examined them in detail I was shaken by the finesses that lay hidden in the apparently simple moves, finesses the like of which you would hardly find in the most tricky tactical middlegames.

Moreover, the methods involved in winning them were so elegant and exact that it seemed to me that the hand that made the moves could be compared to the hands of a diamond cutter who with one imperceptible movement imparts a magical shine to a previously dull stone.

Here are the three examples with the methods of play which we have been talking about.



This position arose in the game Em. Lasker-Pillsbury, Paris 1900. It looks quite simple and should surely result in a quick draw. Can you foresee, however, that Black is bound to lose a pawn by force? Which pawn? Believe it or not, his b-pawn! Some insight is needed to find the following manoeuvre.

22 ♘b1!!

Beginning a most unusual raid on his opponent's position. Black has to concern himself over his backward e-pawn which looks to be the only weakness in his game. He would like to rid himself of this weakness by advancing the pawn. However 22...e5 at once doesn't work due to 23 dxe5 ♖xe5 24 ♖f7 ♖e7 25 ♖xg8+.

22...♖ae8 23 ♘d2 e5

Otherwise it will be too late and the knight will establish itself on e5.

24 dxe5 ♗xe5 25 ♘f3 ♖e3

It now becomes clear that there are many study-like possibilities in the position. Thus 25...♖5e7 can be met by 25 ♘g5 ♗e6 26 ♖e1! when Black is lost in view of the two threats 27 ♖xe6 ♖xe6 28 ♘f7 mate and 27 ♖ge3.

26 ♘g5 ♖xg3 27 hxg3 h6 28 ♘f7+ ♔g7 29 ♘d6 ♖e7 30 ♘xb7 ♘f6 31 ♘c5

Out of the last ten moves White has moved this knight eight times and yet Black is now quite lost. This is not so much because of White's extra pawn as because of the weakness of Black's queenside pawns. Pillsbury still tries to put up a fight.

31...♗g4 32 ♖f4 ♗c8 33 ♖a4 ♘g4 34 ♗a6 ♗f5 35 ♖f4 ♘e3 36 c3 ♔g6 37 ♖f2 ♗e4 38 b3 ♗xg2 39 ♗d3+ ♔g5 40 ♖f8 ♔g4 41 ♖g8+ ♔f3 42 ♖g6

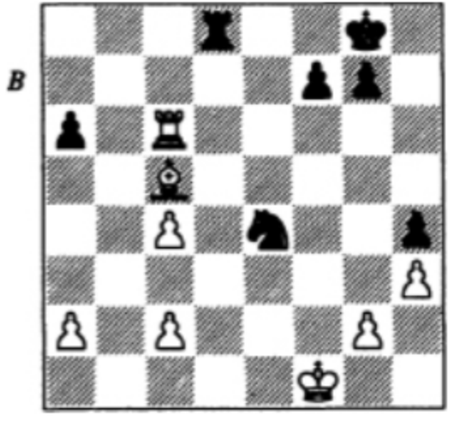
Lasker has hit upon the right way to win. He will exchange kingside pawns and then attack with all his might the weak pawns on the other side.

42...♘g4 43 ♗f5 h5 44 ♖g5 ♖e1+ 45 ♔b2 ♖h1 46 ♗g6 ♔xg3 47 ♗xh5 ♗h3 48 ♗xg4 ♗xg4 49 ♖g6 ♖h2+50 ♔a3 ♖c2 51 ♘M3!

And not 51 ♖xc6? ♖xc3 52 ♘e4+ dxe4 53 ♖xc3+ ♔f2, when it is White who is struggling for a draw.

51...♔h4 52 ♘e5 ♗f5 53 ♖xc6 ♔g3 54 ♖c5 and White eventually won, though resignation did not come until move 85.

This is a marvellous ending. I started studying Lasker's games after this and found many similar examples. I particularly liked the slow but sure way in which he improved his position against Bogoljubow (White) in the New York 1924 Tournament.



The forces left seem very small but there are still exciting happenings. Follow every move by Lasker with care. This example was put down in my notebook for 1937 and ever since then I get real pleasure when I go through the analysis once again.

32...♖d2 33 a4

Instead 33 a3 was a possibility. We shall come back to it later.

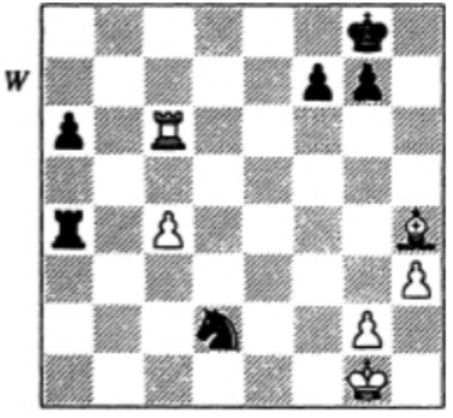
33...♖xc2 34 ♗b4 ♖f2+!

Putting White in a predicament. Should he abandon his g-pawn or play his king into the corner where there are some nasty shocks coming for it?

35 ♔g1

Or 35 ♔e1 ♖xg2 36 ♖c8+ ♔h7 37 c5 ♖b2 (37...g5 38 c6 g4 39 c7 ♖c2 40 ♔d1 ♖c4 41 ♖e8 is bad for Black) 38 ♗a5 ♖c2 39 c6 ♘d6 40 ♖c7 ♖c4 and Black wins by quickly bringing his king to the centre and advancing his kingside pawns.

35...♖a2! 36 ♗e1 ♖xa4 37 ♗xh4 ♘d2!



Now Black wins the c-pawn and so remains a pawn up. What would have happened if White had played 33 a3? Black's rook would then be on a3 and the winning line would be not 37...♘d2 but 37...♖a1+ 38 ♔h2 g5 39 ♗g3 f5 40 ♗e5 ♖a5 41 ♗c7 ♖a2 (or 41 ♗d4 ♔f7). Assessing

this position Alekhine comments: 'White would have a very difficult game, as his king is in the corner and has to face constant mating threats. Nor could he get away from there for quite some time. His bishop has no safe square and is subjected to attacks which win tempi for Black. His passed pawn is almost worthless and the black king threatens to come over to it. Finally Black has the passed a-pawn.'

38 ♗d8 ♘xc4 39 g4

White could not just leave his king in the corner exposed to mating threats. However, the weakening of the kingside gives Lasker fresh possibilities. Manoeuvring in a masterly manner with his two remaining pieces, he provokes the advance of the kingside pawns and wins them.

39...♘d2 40 ♖c8 ♔h7 41 ♖a8 ♖a2 42 ♔g2! ♘b3+ 43 ♔g3 ♘d4!

The start of a whole series of threats by the knight which finally leads to an increase in Black's advantage.

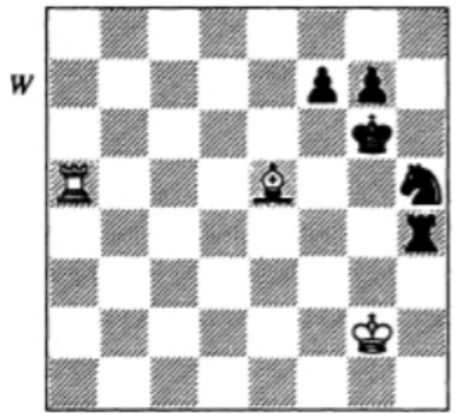
44 h4 ♖a3+ 45 ♔f2 ♘c6 46 ♗c7 ♘e7 47 ♗d6 ♖a2+ 48 ♔f3 ♘c6 49 ♗c7 ♘d4+ 50 ♔g3 ♖a3+ 51 ♔f2 ♖a4 52 ♔g3 ♘e6 53 ♗b6 ♖a3+ 54 ♔g2?

Notice that Lasker is not in any hurry, and his opponent goes wrong. This is a typical occurrence in the ending and proves once again that in a difficult position mistakes are bound to happen sooner or later. The king move to g2 makes Lasker's task easier. If White had played the correct king move 54 ♔f2 then after 54...♘f4 55 ♗c7 ♘d5 56 ♗d8 Black would have to bring his king into the game to break White's resistance, whereas now it is an easy win.

54...♘f4+ 55 ♔f2 ♘d3 + 56 ♔g2 ♘e5 57 g5 ♘g6!

The h-pawn falls, and with it go all White's hopes of saving the game.

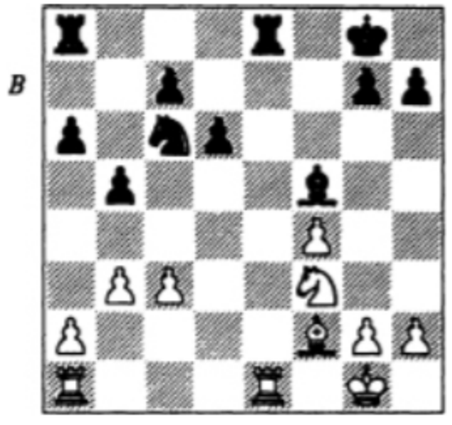
58 ♗f2 ♘f4+ 59 ♔h2 ♔g6 60 ♖a7 a5 61 ♗g3 ♗a2+ 62 ♔h1 ♘h5! 63 ♗e5 ♖a4! 64 ♔g2 ♖xh4 65 ♖a6+ ♔xg5 66 ♖xa5 ♔g6



The final triumph of Lasker's remarkable technical mastery.

67 ♔f3 f6 68 ♗d6 ♖d4 69 ♗c7 ♖c4 70 ♗b8 ♔h6 0-1

Endings such as these encouraged me to develop a taste for simple positions and I started studying them in great detail. Thus I built up a store of experience and improved my understanding of this part of the game. Apart from the endings of the classic players, I was greatly impressed by the endgame mastery of my contemporary, Flohr. Many of the endings which he played in the 1930s figured in my notebook of key endgame positions, and pride of place goes to his game (as White) against Kan in the 1939 Moscow-Leningrad Training Tournament.



Who has the better game? At first glance it is hard to say; certainly it is hard to find any great advantage for Black. But just see how the position is transformed in a few moves. Flohr finds a masterly manoeuvre showing how deeply he has seen into the position.

21... ♗d7

Preparing to put this piece on the long diagonal.

22 ♗e3 ♘e7! 23 ♗d2 ♘d5 24 ♔f2 ♘f6! 25 ♖xe8+ ♖xe8 26 ♖e1 ♘e4+ 27 ♔g1 h6!

Ruling out any chance of White getting his knight on g5 and also threatening ♗g4.

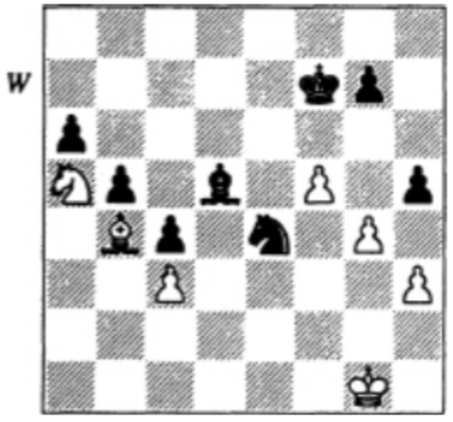
28 ♖e3 c5 29 ♗e1 ♗c6 30 b4 ♖c8 31 g3 ♘f6!

Only a few moves after the remarkable regrouping ... ♗d7-c6 and ...♘e7-d5-f6-e4 Flohr begins a new manoeuvre whose justification lies in the changed disposition of the white forces. White has weakened his c4-square under the pressure from Black's pieces, and now the knight makes his way there. The black bishop is also allotted an aggressive role. From its central post on e4 it is ready to attack the enemy pawns on the queenside while also controlling the kingside.

32 ♘h4 ♗e4! 33 h3 ♔f7 34 g4 ♖e8 35 ♗d2 ♘d5 36 ♖e2 ♘b6! 37 f5 ♘c4 38 ♗e1 ♗b1! 39 ♖xe8 ♔xe8 40 bxc5 dxc5 41 ♘g6 ♗xa2 42 ♗g3

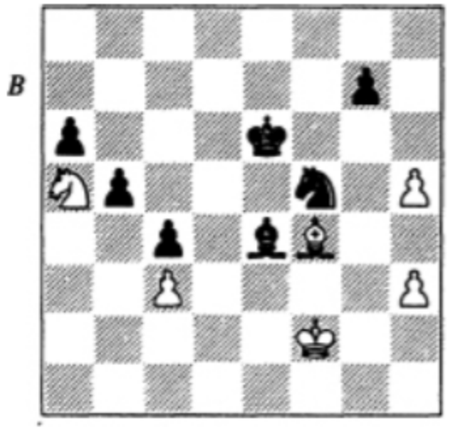
Flohr has won a pawn, but can this be enough to win when one bears in mind that there are opposite-coloured bishops? Black's subsequent fine manoeuvring provides a classic example of how to exploit a material advantage in such positions.

42... ♗b1 43 ♘e5 ♘d2 44 ♘c6 ♗e4 45 ♘a5 ♗d5 46 ♗d6 c4 47 ♗b4 ♘e4 48 ♔h2 ♔f7 49 ♔g1 h5!



A move of great significance. White cannot allow this pawn to advance further because his kingside pawns would be fixed on the colour of Black's bishop and would be bound to fall to a combined attack by Black's pieces. Therefore White has to weaken his pawn chain.

50 gxh5 ♘g3 51 ♔f2 ♘xf5 52 ♗a3 ♔f6 53 ♗c1 ♔e6 54 ♗f4 ♗e4 55 ♗c7 ♔d5 56 ♗b8 ♔c5 57 ♗a7+ ♔d6 58 ♗b8+ ♔e6 59 ♗f4



59... ♗a8!

Yet another regrouping. Black's king has the way freed for him to come in by d5 and e4. Flohr too is not in a hurry!

60 ♗c7 ♘e7 61 ♗b6 ♘d5 62 ♗d4 ♘f6

Further material gain.

63 ♔e3 ♘xh5 64 h4 ♘g3 65 ♘d2 g6 66 ♗b6 ♘f5 67 ♗d8 ♔d5 68 ♔e2 ♔e4 69 ♔d2 ♔f3 70 ♔c2 ♔g4 71 ♔b2 ♘xh4

With the loss of this pawn the time has come for White to admit defeat. However, out of inertia he played on until move 85.

This example really shows what endgame technique is. It is no accident that Botvinnik has frequently recommended that a collection of Flohr's best games should be published.

Let us list again the points specific to the endgame phase:

1) Think in terms of schemes.

2) Do not be in a hurry.

3) Bring the king as quickly as possible to the centre of the board.

5 A Player's Knowledge

There was a time when chess was simply a game, a hobby for leisure hours. In our days it has become an art in which the virtuosi create real works of art, games which are then disseminated all over the world by press, radio and television to millions of fans who get aesthetic pleasure from these games. In many countries the game has become an aspect of that nation's culture, and that is the reason why the chief representative of this culture, the grandmaster, has such a big responsibility. He is under an obligation not only to play creatively and invent something original of his own; he must also rely on the experience of his predecessors and be guided by the conclusions drawn by the leading exponents of the game over the centuries. A grandmaster is a scholar in the field of chess, and this academic status carries with it certain responsibilities. In order to gain this title one has to follow an individual course of study and master much of the knowledge developed by mankind in this field.

Moreover, there is not even a recognised textbook which would give some guide as to how to go about the very difficult work of self-improvement. Hence this is a topic which the present work will have to cover to some slight extent.

The chess player has to cover a wide field. First of all he must know how to prepare for competitions, which presupposes some fundamental knowledge of sport, elementary physiology and, in particular, psychology. He

will also need to find out somewhere how to evaluate his performance, as this is of great help in measuring his progress as a player (*Editor's Note*: These days, with the ready availability of both national and international rating systems, measuring performance is not a problem. The problem is rather to avoid being so concerned about one's rating as to steer clear of broadening one's chess experience, for example by trying out new openings. Gaining knowledge of all types of position is an essential part of improving one's play).

He will also have to have a thorough grounding in chess knowledge. A grandmaster must be familiar with the direction of the latest theoretical research and with opening innovations. He must be *au fait* with the latest discoveries in the ending. Analysis of games and the positions which could have arisen in them forms the daily work load of a grandmaster and it takes up a lot of time and effort.

When I was a postgraduate student at the Bauman Technical College in Moscow, I once told the staff of the Resistance of Materials Department, in which I was working, how much effort was needed in order to prepare for a tournament.

'Suppose you have to play in a tournament with 20 competitors. You have to prepare separately for each one. This involves studying at least 30 of his games and that means over 600 games in all. Even if you only spend half an hour on each, you will need 300 hours, which at six hours a day works out at 50 days. What about the conclusions which you draw from these games and the preparation of openings, especially the particularly hard work of finding new moves which on further examination may well prove unsound? Yes, this means real hard work for you!'

What ought a grandmaster to concentrate on; what can he simply not afford to miss out? I have already told the reader that I am not a 'born' player and that most of what I have achieved is the result of hard and critical analytical work. That is why I flatter myself with the hope that even a simple list of what I once undertook will help the young player in his development, especially as I also include the experience of my fellow grandmasters as far as I am familiar with it.

Opening Study

The opening is the phase of the game in which you lay down the foundation for future victory. There are even cases where the game is won straight out of the opening. Hence the need for deep study is obvious.

How do the world's leading players tackle this task? The answer to this question must be of great help to the student.

There is no limit to opening knowledge, so many quite strong players are opposed to a scrupulous examination of many variations, even though these sceptics themselves know quite enough to pull off victories from the opening in top-class events. Thus Bronstein alleged that the players have so many different possibilities in the openings that these options cannot be fully described; yet, as will be seen from the examples quoted below, Bronstein has been the originator of many new key variations in the opening.

There are two main approaches to the openings. Certain grandmasters know almost all opening systems and variations and are interested in each new move, whether played in distant Argentina or tried out in a lower-class event. Such grandmasters clearly keep the most careful records of all new moves and draw their own conclusions about them. Moreover, their inquisitive minds are working

constantly in the search for new moves and systems in all the basic theoretical lines.

These grandmasters have great practical strength but, frankly speaking, I am convinced that the bookishness involved in their approach hinders their further rise on the path to the top.

I consider that a more practical approach is shown by those grandmasters who choose certain opening systems for their repertoire and then study them in great detail, and almost ignore other openings.

You cannot hope to know everything about every subject, given the present-day volume of information. You have to know everything about one field and a little about some others. I feel that the grandmasters of the first group are taking an intolerable burden on themselves. A more correct approach is to restrict oneself to a selection of openings and to know everything about one's favourite lines. As far as I know, this is the policy of players such as Botvinnik, Petrosian, Smyslov, Tal, Spassky and Korchnoi.

My own experience may be a guide to the reader in making his own choice. Up to 1938, when I won the master title, I had some general knowledge of most openings and only began a deep study of a few lines as part of my concrete preparation of innovations for the 1939 USSR Championship. This policy brought me immediate benefits and from then on my opening knowledge has always developed along two main lines.

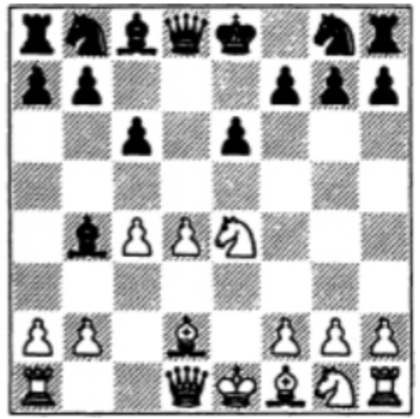
As the reader is well aware, the main problem is to find a good defence as Black to White's two main opening moves of 1 e4 and 1 d4. In answer to 1 e4, I spent my time mastering the strategically complicated Scheveningen Variation of the

Sicilian Defence; in this line Black prepares for a counter-attack, suiting my style of play perfectly. In answer to 1 d4 I made what appears the strange choice of the (Semi-)Slav Defence, which is an opening of quite a different style, where knowledge of long analyses is called for and in which new moves were being discovered nearly every month by players all over the world.

So in one case I played more in accordance with general plans, in the other my opening play consisted of concrete moves and sharp variations in which improvements and refutations could be easily found in analysis away from the board. Such improvements in sharp lines can easily lead to an immediate win, as is shown by the variation which I played in the decisive last round game against Bronstein in the 1948 USSR Championship. It went 1 d4 d5 2 c4 e6 3 ♘c3 c6 4 e4 dxe4 5 ♘xe4 ♗b4+ 6 ♗d2 (*D*).

After long thought I exchanged bishops. After the game my trainer Simagin asked me rather sternly, 'Why didn't you take his d4-pawn? After all, we had analysed that line right down to the last move!'

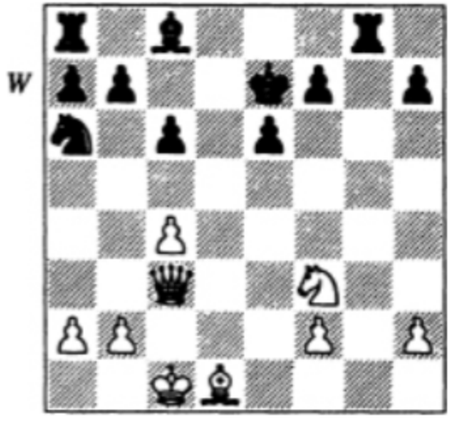
B



I tried to justify my decision, but felt rather guilty about it. I had been afraid of a possible innovation by my opponent and so preferred to go into a difficult ending. Several months later in the Budapest Candidates Tournament I reached the

same position against Bronstein and I decided this time to try out the variation which had been analysed 'down to the last move'. There followed 6...♕xd4 7 ♗xb4 ♕xe4+ 8 ♗e2 ♘a6 9 ♗c3 ♘e7 10 ♗xg7 ♖g8 11 ♗c3 ♕xg2 12 ♕d2! ♕xh1 13 0-0-0 ♘d5! 14 ♘f3! ♕xd1+ 15 ♗xd1 ♘xc3 16 ♕xc3 ♔e7 (*D*) (*Editor's Note*: Theory in this line has changed substantially since Kotov's day – see Peter Wells' book *The Complete Semi-Slav* for more details).

Now I was quite taken aback by my opponent's next move 17 ♘e5! – not too difficult to find, yet missed by us in our preparation. In effect, at the end of a forced variation, I was left in a hopeless position and my opponent got a whole point without any real effort on his part. This was a painful lesson for me and from then on I decided to avoid variations which had been analysed 15-20 moves deep. (From a 1990s' perspective, 11 ♗c3 is regarded as bad due to 11...♘d5!, with 11 ♗f6 being preferred – *Graham Burgess*).



As a rule my fellow grandmasters follow the same policy, though there are some who like playing with fire and boldly go into such lines. Many opening experts such as Boleslavsky, Bronstein, Geller, Taimanov, Vasiukov and Furman specialise in forced lines in the opening.

In advising the reader I could recommend him to keep a card index file of all theoretical variations and keep it

regularly up to date, but this is an immense task which is hardly necessary in the earlier days of improving your play. Later on, when you become a master or grandmaster this might prove useful, depending upon your temperament, but at first it is better to avoid such an approach (*Editor's Note*: These days, the use of computer databases allows players to perform fairly easily what was once an extremely time-consuming task).

The most rational means of coping with the problem is to choose two or three lines for Black (one of which must be suitable for producing complications) and go into them in great detail. You must try to know everything about these lines. Then in other openings you can restrict yourself to a basic minimum.

The main problem in studying the opening is to understand the positional essence of certain 'key positions', as Bronstein calls them. Once a player has studied the key positions of a variation, he will find it easier to understand similar key positions in other variations; then, little by little, he will come to understand the whole opening.

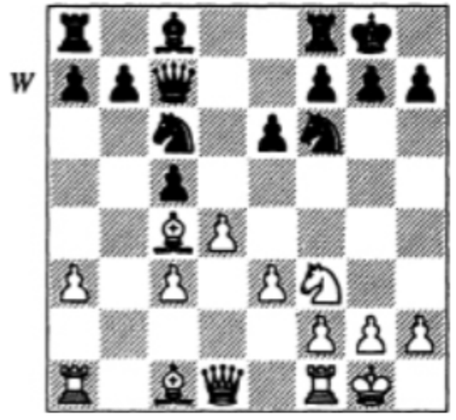
Let us take some examples where analysis will help the reader to determine a *modus operandi* which he can then apply to openings that interest him.

The diagram on page 98 shows a key position in the modern treatment of the King's Indian Defence. White has more space, but the cramped nature of Black's position is one of those concessions made in this opening to build up a coiled-spring effect which can suddenly expand to strike a nasty blow.

There are many factors which indicate a potential threat in Black's pieces. His bishops are poised for action, his rook and

knight attack the enemy e-pawn, whilst his apparently weak d-pawn is ready to advance in many variations. Other parts of the battlefield can come into the reckoning. The advance of Black's a-pawn creates a tense situation, especially as the long black diagonal is already weakened. A similar advance could be made by the black h-pawn. If it got to h4 White would be faced by the dilemma of weakening his king position by capturing it, or leaving it as a constant threat. These combined threats all over the board can, in the hands of King's Indian experts, prove troublesome to White. The continuous tension which demands undeviating attention from both sides makes the King's Indian a truly modern opening.

Another key opening position arises after the moves 1 d4 ♘f6 2 c4 e6 3 ♘c3 ♗b4 4 e3 c5 5 ♗d3 0-0 6 ♘f3 d5 7 0-0 ♘c6 8 a3 ♗xc3 9 bxc3 dxc4 10 ♗xc4 ♕c7.



Chess players sometimes call this position a *tabiya* (*Translator's note*: 'Battle array' – Arabic), as in the ancient form of chess this was the name given to the position from which play began.

What is the attraction of this position, which has occurred so often in games of the modern era? The answer lies in the assessment of the position.

White's pawn formation has considerable potential energy which at any moment can be transformed into kinetic

energy. When the white centre pawns advance they are capable of sweeping away all obstacles in their path, while behind them the white bishops and rooks come to life. That is why White tries to force the advance e4, giving more scope to his c1-bishop for attacking purposes. The further advance of the pawn to e5 will drive away the main defender of Black's king position. Then White can direct all his fire against the weakened squares at h7 and g7.

Black's task in the position is easy to understand. He must put a brake on White's pawn expansion by attacking the pawns and controlling the squares in front of them. He must have the long-term aim of exerting so much pressure on the white centre that he will weaken the pawns and ultimately win them. The reader will remember that we have already mentioned this in the section on the mobile centre.

Such verbal assessments of key opening positions can be found in tournament books and reference books on the openings. Once the reader has understood the essence of key positions and armed himself with a few variations he is to some extent ready to meet master players.

Is it Possible to Study the Middlegame?

This question has exercised the minds of players for many decades and for a long time the answer was in the negative. However, in recent decades when opening knowledge (and indeed knowledge about other phases of the game) has made such immense strides forward, the question has become more pressing.

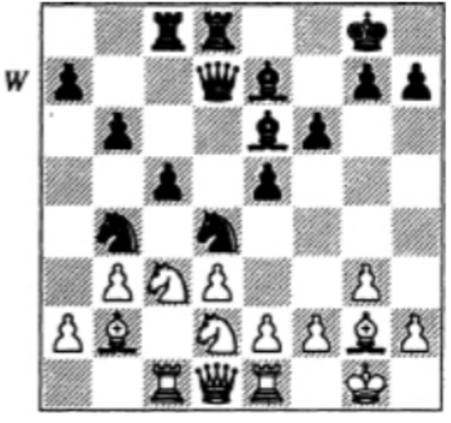
What do the experts study in the middlegame? We have already discussed the basic points of the elements of a position and the plans arising from them. We can now add study of combinations which is normally divided into the

three basic motivating elements (the positional basis for the combination, theme and the final position) and the actual order of moves needed to produce the final position.

Another basic concern of modern studies of the middlegame is the many possible types of attack. Exhaustive study has been devoted to pawn-storms with kings castled on opposite sides of the board and to the types of piece and pawn attacks possible when the kings have castled on the same side. This method has been found inadequate and modern grandmasters try to classify other typical positions systematically, so as to discover their secrets and decide the correct methods of attack and defence in them.

Middlegame theoreticians are always good practical players as, unlike the opening and ending, the middlegame can be mastered only by those who have practical experience and have studied many typical positions from this phase of the game. In our section on positional assessment, we mentioned that Botvinnik's tournament games provide an almost complete solution to the problems arising from a position in which White (or in some cases Black) has a strong square at d5 (d4 for Black).

Similarly one finds repeated in Botvinnik's games the exploitation of a pawn formation of the type shown in the next diagram.



This position is taken from the game Kirilov-Botvinnik, 7th USSR Championship, 1931. Botvinnik won games from this type of position against Liliental at Moscow 1936, against Lisitsyn in the 7th USSR Championship and against many others. In these games the defending side played too passively and lost quickly; later a clear line of play for the defender was found in the form of the advance f4, which was played in Fine-Botvinnik, Nottingham 1936 and Kotov-Furman, 16th USSR Championship 1948.

Many typical positions arise from the King's Indian Defence, one of which we have already discussed. I should add that I have often seen Boleslavsky and Bronstein analysing endgame positions which arose from this opening.

What need is there to mention the typical positions which arise from the Rauzer Variation of the Ruy Lopez or from the Sicilian Defence? The best methods of attack and defence in all these variations have been worked out in detail, and in tournament games you will often see how quickly the moves are made in these lines by such authorities on them as Bronstein, Shamkovich and Vasiukov.

Nowadays, familiarity with typical positions on the part of the best players has been deepened to a surprising degree. In the 1967 Palma de Mallorca tournament Botvinnik adjourned his game with Matulovic and during the break from play remarked to Smyslov and me: 'This position is an easy win for White. At the appropriate moment there is a decisive knight sacrifice at g6 or h5. I analysed similar positions when I was preparing for my match with Tal.' Then straightaway he found the right way to go about winning it. That is the degree to which the technique has been developed nowadays.

So the reader in his turn must analyse typical middlegame positions. Analyse games that are of interest from this point of view and find the methods of attack and defence which occur most frequently in your own games. With the passage of every day and every tournament you should increase your familiarity with the secrets of the middlegame by knowing more and more positions which have been described in theory. This does not imply that chess is becoming played out. Quite the reverse; there is a growing richness in the beauty of combinations and in the depth and complexity of strategic concepts.

Adjourned Games

(*Editor's note*: These days fewer and fewer games are adjourned, although it is still a common practice in events involving play on weekday evenings. Kotov's discussion applies especially to the system, common in tournaments played in the former Soviet Union, where special days

were allocated for adjourned games. In most Western events, adjournments were played after a two-hour break, giving little time for the detailed consideration of adjourned games described by Kotov.

The younger generation is at least being spared one of the tortures of playing tournament chess.)

A large proportion of tournament games are not finished in the first playing session of five hours and are completed on a later day. The player whose turn it is to move must seal; he is entitled to write down his move on the score sheet and, without revealing it to anybody, put it in an envelope and seal it up.

Between the time of sealing and the adjournment session, the position is analysed and the players thus arrive at the board with a store of variations which they have examined at home.

This procedure of sealing and then analysing at leisure poses certain problems which cannot be easily solved without the benefit of knowing the experience of strong players. There are also some strange and tragic cases which have occurred when sealing a move, and this material enables one to advise the inexperienced.

First of all, there is the question of whether you should seal or try to get your opponent to do so. In many events, even at such a high level as the world championship, grandmasters have regularly committed the mistake of hurrying to make their 41st move, i.e. the one after the time control. There are several reasons for this fatal haste. First of all, it is a precaution in time-trouble, in case the moves have been counted up wrongly and only 39 have been made instead of the necessary 40. Then there is the desire to put the responsibility for finding the right move on to the opponent. Players seem to argue to themselves: 'Why should I sit here another 20 minutes or so, tired out as I am by the time scramble, and then have to try to find the right move. It might even be a move very hard to find; possibly there is only one good move. Let my opponent do it instead. True, it is nice to know what move has been made and so be in a position to analyse the right position, rather than have to guess, but still there are advantages in not having to seal.'

And so the nervous grandmaster, seeing that the controller is bringing the envelope to him, hurries to make a move without having had the chance to think about it properly. He then goes home and often finds that the move was the

decisive mistake. Do you remember the blunder committed by Bronstein in his match with Botvinnik (page 62)? The losing king move was his 41st move!

There are cases when it is in order to make another move. This is when the move is the only possible one, or an obvious move, but in that case it is a good idea to wait before making it, so as to rob your opponent of the chance of replying with an equally obvious move. Still, in the majority of cases to hurry is to go wrong. Botvinnik never makes his 41st move and he, more than anyone, has had experience of where the balance of the advantage lies in sealing or not. Obviously his conclusion is that the advantages of playing a quick move are infinitesimally small compared to the risk involved.

So learn a lesson from him, and do not make move 41 but seal it instead. You will soon come to realise the advantage of doing so.

Once a player gets home he sets up the position and starts looking at it – and then it's goodbye to any hope of a good night's rest. The time goes by, his family offer him a meal or a cup of tea, but he cannot tear himself away. He gets to sleep only in the early hours, and yet he has to play again later that same day. No wonder that catastrophe follows. In the semi-final of the 1936 Trade Union Championship I adjourned against Fogelevich in a hopeless rook and pawn ending, and looked at it for two hours. Discouraged and tired out, I lost my second-round game against Ilyin-Zhenevsky without putting up any sort of fight, and then lost in the third round to Yuriev. Yet when the adjourned games session came round Fogelevich only just managed to get a draw with me! So what is the point of torturing yourself over adjourned games?

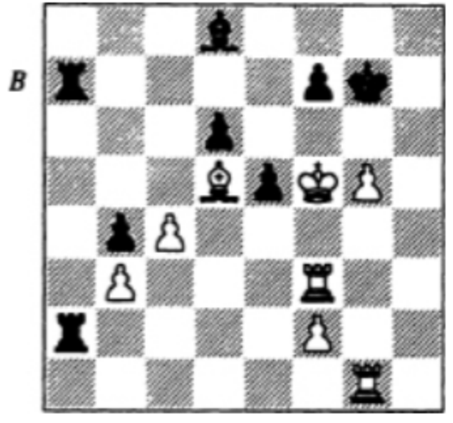
Grandmasters who know how to control their nerves never analyse a position on the night they played the game – or at

least this is the advice they give to others! If the grandmaster does look at the position it is only to solve a few general questions. He never tries to analyse it in detail or to find the way to win it. Certainly not. Go to bed and sleep; there's another game tomorrow, when there is a point at stake just as much as in the unfinished game.

Adjourned positions sometimes occur in which it is hard to forecast the result. You come home thinking you are going to win. You examine it and find it is nothing like as simple as you thought, and are taken aback. In such cases we often say jokingly to each other, 'Let us apply the "Liliental principle".'

The point is that this experienced grandmaster and trainer always starts analysing a position by asking himself if he can draw it, and only when he finds that he has at least a draw does he start looking for a way to win it. Try this method and you will find that your analysis becomes more exact and not so long-winded.

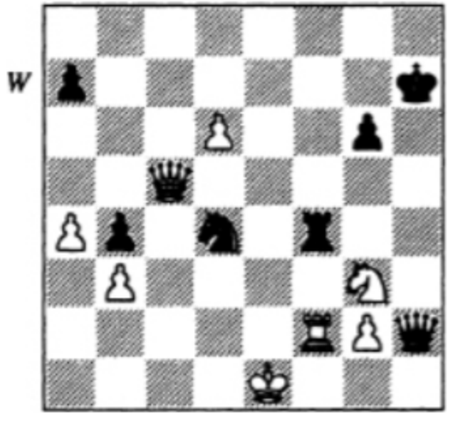
One other question is whether you do best to look at the position on your own or with a friend. Experience shows that, as a rule, collective analysis tends to be inaccurate. In my game with Boleslavsky (White), Moscow 1942 I analysed the game with the strong master Kan.



We spent about 30 hours examining it, and yet my very first move after the adjournment blundered away a rook.

When I played 1...e4 my opponent looked at me in surprise and replied 2 g6!, after which I soon resigned.

No less annoying was the blunder made by Taimanov in the third game of his match with Botvinnik played in 1953.



Taimanov played 44 ♖xf4. At home he had looked at complicated variations arising from the natural 44...♕xg3+ 45 ♖f2 and found a win for White in all of them. Botvinnik, however, played the 'unnatural' 44...♕g1+! and won White's queen straight away, with the game ending a draw after Black's 55th move.

Remember that, even though a player may be stronger than you, he cannot work on your position as well as you can yourself. You have been intimately associated with the position and it has penetrated your consciousness. Every one of your brain cells is working to some extent on the solution of the problem. You have only to remember how often a player has found that the correct solution has occurred to him after he has 'slept on it'.

The experience of grandmasters has indicated the following procedure as best. First of all look at the position with your friends. They may well make suggestions which would not have occurred to you. Then it is essential to examine all these suggestions by yourself. You will find that much of what they have suggested is not needed. Make a

full analysis on your own, and try to write it down. Then you should ask your friends to look through it with you as a check on the variations (or with a computer – *Editor's note*).

In the 1967 Palma de Mallorca tournament, the break between the playing session and the adjourned games session was only an hour and a half. Botvinnik, Smyslov and I started with a joint analysis and then Botvinnik or Smyslov (according to who had adjourned the game) would go to his room for half an hour and just before play restarted we would all three check through the final analysis.

The ability to analyse adjourned games depends on one's general analytical ability. As a rule a grandmaster copes with the task without much trouble, but the finest master by far in this sphere is Botvinnik, whose remarkable superiority never failed to make me marvel. One has only to examine the collection of his best games to realise what 'machine-like' accuracy all his adjournment analysis shows and, on top of that, what psychological nuances he took account of in that analysis. He had a deep knowledge of the character of his opponents, who included the world's strongest players.

Advice on Various Questions

Chess and Life

People learn how to play chess at different ages, but most frequently when they are children or teenagers. They become very keen and spend all their spare time playing. Then for some the attraction lessens, whereas for others their love of the game increases all the time. It is from the latter group that we normally get our first-category players and then our candidate masters and masters.

What should a teenager do when he has gained the title of candidate master? After all, life demands that he fulfil his obligations to study and work. Where does chess fit in? Considerable experience shows that chess does not get in the way of these obligations. It is not difficult to combine a very strong attraction to chess with work and study. My own experience was that chess did no harm my studies at school and in college, and even proved to be helpful as it played a part in developing habits of logical thought.

Can chess be a profession? Once, in Bulgaria, an orchestra conductor asked Bondarevsky, 'Tell me, grandmaster, do you have a profession?' Bondarevsky smiled and in his turn posed the question, 'Do you?' The conductor realised that his question had not been very tactful, and apologised.

We are firmly of the opinion that a person can devote all his efforts to the game all his life. Chess has come to deserve this. As Botvinnik put it, 'Chess is no whit inferior to the violin, and we have a large number of professional violinists.' At the same time, however, I wish to warn the young reader that when he is taking his first steps in the big world he should not give up his work and studies for the sake of concentrating on chess alone.

How often have I come across those so-called 'unrecognised' talents. What a pitiful sight they are! The only correct approach is to combine work with chess activities.

Only when you get the fullest recognition and become a grandmaster can you devote yourself entirely to the art of chess. Even then the decision demands serious thought; it is still far from easy to have the fate of you and your family dependent upon the hazards of tournament play. Moreover, there are a number of players who are able in one way or

another to continue to follow their chosen profession and yet still manage to achieve excellent results in tournaments.

The Factors of Success

The following comment by World Champion Alekhine is well known: 'I consider that there are three factors necessary for success. Firstly, an understanding of one's strengths and weaknesses; then an understanding of the opponent's strengths and weaknesses; and finally a higher aim than passing satisfaction. I see this aim as the desire to achieve those scientific and artistic values which put chess on a par with a number of other arts.'

Let us consider these three factors, starting with the last one. The reader will doubtless understand what is meant. I have had occasion to see just the opposite when in a Pioneer Palace the player giving a simultaneous exhibition has put a piece *en prise*. His young opponent, eager for the win, captures it and gets high praise from the resident trainer. That could hardly be called a high aim. But we do know the service rendered to the game by such outstanding players as Riumin, Ragozin and Simagin, for whom the quality of the game they were playing was a more important factor than the result. This is where they saw the true significance of their endeavours, and theirs is the example which we should all follow.

Know Your Opponent

Grandmasters are very well informed about the strong opponents whom they meet frequently in top-class events. When I used to take part in the qualifying events for the

world championship, I kept a special file for each opponent, and as far as I know the same practice is followed by other grandmasters. These files contain a summary of the characteristics of the player and advice to oneself on what points should be concentrated on in view of his strong and weak points.

A great deal of attention is devoted to the opponent's games. All of these have to be studied and conclusions drawn. These conclusions are then added to the file. Then you can plan the openings and actual variations which you will adopt next time you meet. Previous games with a particular opponent are a guide to the next encounter and you try to work out what his attitude will be and what form he is in.

You make a note of how he behaves during a game and whether he has any weaknesses as a tournament player. Thus, for example, it is well known that Efim Geller and Mikhail Tal often lose a game early on in the event, but this only stirs up their fighting instincts and they play on with redoubled vigour. On the other hand, Laszlo Szabo reacts badly to losses and once he has lost his first game in a tournament his play goes down.

This knowledge of your opponent, not just as a player but also as a person, is very important. How often have I heard from Botvinnik remarkably deep comments on his fellow grandmasters. Speaking of Korchnoi's wonderful tournament victories he once said, 'Korchnoi is a marvellous tournament fighter. He makes a bee-line for the enemy, but at the same time he rarely fails to spot errors.' This phrase 'rarely fails to spot errors' is a fine description of the accuracy which Korchnoi manages to combine with his fighting play.

Botvinnik remarked of Petrosian, 'He has the rare gift of putting his pieces so that they always defend each other'. Of one tall grandmaster he said, 'He's very fond of long moves'. Once at a joint training session we were analysing a position in which White had bishops at d3 and b2 pointed menacingly at the black king. The former world champion's comment was, 'This is the sort of position where Kotov would finish him off quickly'. But this was far from being the first time when he showed a surprising acquaintance with my play. 'Kotov has a poorly developed sense of danger,' he said once, and I realised why I had suffered so many reverses. How often had I lost games in which there was an obvious danger right under my nose, and yet I thought I had a fine game. That is why I like it when someone tells me during the course of the game that I stand badly and should lose. But for heaven's sake don't say that to Flohr!

We all study our opponent and try to work out which positions he likes and which ones he cannot stand. We also know the external signs which indicate that he does not like the look of his position, though these signs vary immensely. With some players their ears turn red, others start pulling their hair, others shake their feet about under the table. All this must be known, and taken into account. In the tense struggle of a tournament game even the slightest trifle that helps you to know what the opponent is thinking is valuable.

Know Thyself!

It is important to know the positive and negative features of your opponent, but it is no less important to know the same about yourself. That is why Alekhine put it first on his list. You will not find much help in this from asking other people.

Only a severely self-critical outlook will help a player to assess his strong and weak points and so further the process of improving his play.

During the process of improvement, a player may well find that one aspect of his play stands still while other aspects are going forward. To combat this tendency of lopsided improvement I recommend a periodic check-up. I did this myself every two or three years and I know that many of my colleagues follow the same practice.

The check-up should consist of analysing of all the games you have played since the last such examination and in particular the games you lost must be examined with a fine tooth-comb. Every move must be studied scrupulously, mistakes criticised and conclusions drawn.

Every aspect of the game should be examined at this time: how you play the opening, your endgame technique, your mastery of middlegame play.

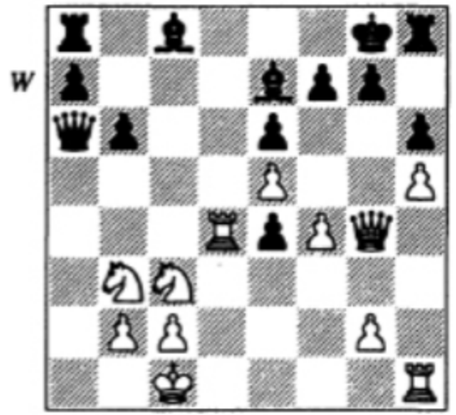
Drawing general conclusions about your main weaknesses can provide a great stimulus to further growth. There was a time when Botvinnik himself admitted that he was deficient in the ability to play sharp complicated positions. 'Here my old fault of a lack of tactical vision showed itself,' he wrote in the notes to a game, yet this was at a time when he was already Soviet champion!

By hard work he managed to eradicate this fault and his games subsequently contained the most tricky and complicated combinations. In the same way Bronstein had to work hard at improving his play in the endgame.

You also have to know your own strong and weak points from the point of view of tournament play. How do you react

to losses; how do you behave after you have committed an inaccuracy or blunder? Do you go red, turn pale or can you remain poker-faced? You must not let your opponent know how you feel.

Perhaps it will prove useful for the reader to know of my own failings in the middlegame. Up to about 1937 I underestimated the significance of attacks, combinations and sharp tactical play. A serious check-up revealed this fault to me, and analysis of the following game served as a stimulus to get back on to the right track.



Here I was White against Ilyin-Zhenevsky in the 1935 semi-final of the Trade Union Championship. I have a definite advantage because my pieces are more actively placed and the black king is not too safe. What would a player of Tal's disposition do here? He would look for a concrete possibility to open up the black king position and try to mate him quickly, especially since Black has not yet completed his development.

What did I do? I just manoeuvred about without a definite plan. I played 1 ♖xe4 thinking that my superior development and space advantage would automatically lead to a win. Black replied 1...b5, then safely completed his development and even went on to win the game thanks to his two bishops.

In the analysis I did later at my check-up, I found a win by 1 ♘xe4 ♔b7 2 ♘g5+! which would shatter Black's position, e.g. 2...hxg5 3 fxg5 ♗b7 4 g6+ ♔h6 5 gxf7 ♗g5+ 6 ♔b1 ♗d5 7 ♖xd5. Analysis showed that other possible defences would not save Black from the fierce attack that White develops, and from this I came to realise where my main weakness lay.

I then issued an order to myself: devote more time to the study of sharp positions, learn how to discover hidden tactical possibilities and look for ways to attack the enemy king. Play bold sharp combinations – that was the essence of my order of the day, and soon this order was duly carried out.

The time has come for the author to say good-bye to his reader. What should his final words be?

The reader will improve his play by rooting out the faults we have indicated, by study of the rich chess heritage we have received from the past and by stern self-criticism.

If, dear reader, you do all this, then the future is yours!

Solutions to the Exercises

1: Euwe-Keres, 5th match game 1939/40.

1) 21♘e1?♖d8+ and 22...♖d2+.

2) 21 ♘e5 ♘xg3 22 hxg3 ♗.f5! 23 f4 gxf3 24 ♘xf3 ♖xe3.

3) 21 ♘d2 ♖d8 22 ♖c2 ♗f5 23 ♗h4 ♗d7.

4) 21 ♘g1? (as played by Euwe in the game) 21...♖d8+ 22 ♔e1 ♖d2 23 f3 ♖xg2.

5) 21 ♘h4! ♖d8+ 22 ♔e1 ♘xg3 23 hxg3 a5 and Black has the better game.

2: Boleslavsky-Kotov, Groningen 1946.

Yes. 24 ♘d4! and now:

1) 24...♕c7 25 ♖e7 ♘c8 26 ♘e6 wins.

2) 24...♖e8 25 ♖xe8+ ♗xe8 26 ♘e6.

3) 24...♘xd5 25 cxd5 cxd4 26 ♖e7 g5 27 ♕g3 ♗b5 28 h4!.

4) 24...g5 25 ♕f3 and now: 4a) 25...♘xd5 26 ♘xf5 ♗xf5 27 ♕xf5 ♘f4 28 ♕xc5!.

4b) 25...f4 26 ♕h5 ♗e8 27 ♕h6 cxd4 28 c5 ♖6d7 29 d6+ ♗f7 30 ♖e7!.

5) 24...♘c8 25 ♕h6 and now: 5a) 25...cxd4 26 c5 ♖a6 27 d6+.

5b) 25...b6 26 ♘e2 ♗e8 27 ♘f4 wins.

3: Kotov-Keres, Candidates Tournament, Zurich 1953.

Yes. 42 ♖d8+ ♔g7 and now 43 ♖d6!!:

1) 43...f5 44 ♖d7+ ♔f8 45 ♘f6 ♖xf2+ 46 ♔e1 and White has the rook and knight drawing apparatus ♘h7-f6 with perpetual check.

2) 43...f5 44 ♖d7+ ♔g6 45 ♖d6+ ♔f7? 46 ♖f6+ and 47 ♖xf5 wins for White.

4: Boleslavsky-Liliental, Budapest 1950.

No, the move is sound. 14 b4! ♗f6 15 ♖ac1 and now:

1) 15...d5 16 cxd5 ♕xc3 17 ♕xc3 ♗xc3 18 ♖xc3 ♗xd5 19 ♘e5 ♗xg2 20 ♔xg2 with advantage.

2) 15...♕xc4 16 ♖xd7 ♖b8 17 ♘d2 ♕c8 18 ♗xb7 ♖xb7 19 ♘d5! ♖xd7! 20 ♕xc8 ♖xc8 21 ♖xc8+ ♔g7 22 ♖g8+ ♔h6 23 ♘xf6 ♖xd2 24 h3 and wins.

3) 15...♕xc4 16 ♖xd7 ♖xf3 17 ♗xf3 ♖ac8 18 ♗b7!.

5: Bronstein-Boleslavsky, Match 1950.

1) 42 ♕xd6 c4 43 ♗e6 ♖b8 44 ♔g2 ♖b2!.

2) 42 ♕xd6 c4 43 ♔f1 ♖b8 44 f4 ♖b2 45 ♕d4 ♕a3!.

3) 42 ♕xd6 c4 43 ♖b1 c3 44 ♖c1 c2 45 ♖xc2 ♘f3+ with forks in the air at el or d4 after a preliminary ...♘a1+.

4) 42 ♖xd6 c4 43 ♖a6 ♕d4 44 ♖d6 ♕xe4 45 ♖d7+ ♔h6.

6: Boleslavsky-Bondarevsky, USSR Team Championship 1951. 27 ♘xe5! and now:

1) 27...dxe5 28 ♕xe5+ ♗f6 29 ♕xe8 wins.

2) 27...♘xh6 28 ♘xd7 ♕xd7 29 ♕xe7 ♕xe7 30 ♖xe7 ♖f7 31 ♖ce1!.

3) 27...♖xc2 28 ♖xc2 ♘xh6 29 ♘xd7 ♕g6+ 30 ♔h1 ♕xc2 31 ♘xf8 ♗xf8 32 ♗xh6 ♕xe2 33 ♖xe2 ♗xh6 34 ♖e7 wins the knight.

7: Tal-Keres, Belgrade 1959.

Moving the knight is bad.

1) 46 ♘b3 ♕e2+47 ♔h3 ♘f4+!.

2) 46 ♘f3 ♕e2+ 47 ♔h3 ♘f2+ 48 ♔g2 ♘d1+ 49 ♔h3 ♕f1+ wins the queen.

3) 46 ♘c6 ♕d2+ 47 ♔h3 ♘f2+ 48 ♔g2 ♘g4+ 49 ♔h3 h5 and mates.

4) 46 ♘b5 ♕e2+! 47 ♔g1 ♘e5 wins.

White does best to play 46 ♕d5 as Tal did in the game. Other queen moves are inferior, for example 46 ♕g4 ♕f2+ or 46 ♕d7 ♕f2+.

8: Spielmann-Lasker, Moscow 1935.

Yes. 28...♔a4 and now:

1) 29 b5 ♖xc1 30 ♖xc1 ♔xa5 and Black is safe.

2) 29 ♖xc4 dxc4 30 b5 ♔xa5 31 ♖d6 ♖e8 32 ♗c5 ♗c8 33 ♖c6 ♗b7 and if 34 ♖b6 ♗f8 or 34 ♖c7 ♗e4 with mating threats.

3) 29 ♖xc4 dxc4 30 ♖b1 ♗f5!.

4) 29 ♗c5? ♖xc5 30 bxc5 ♖xa7 31 c6 ♖xa5 32 c7 ♗c8 and White has no clear way of exploiting his passed pawn.

9: Donner-Kotov, Venice 1950. The best move is the surprising 19...♘a2!!:

1) 20 ♕a3 cxd2 21 ♖xa2 dxe1♕ 22 ♖xe1 ♕xd4+.

2) 20 ♕c2 ♕xd4+ 21 ♔h1 cxd2 22 ♕xa2 dxe1♕ 23 ♖fxe1 ♗c6 with a winning position.

3) 20 ♕b1 ♕xd4+ 21 ♔h1 cxd2 22 ♘c2 ♕xe5 also with a win.

4) 20 ♕d1 ♕xd4+ 21 ♔h1 ♕xd2 22 ♕xd2 cxd2 23 ♖xa2 dxe1♕ and wins.

10: Panov-Lisitsyn, Moscow 1939.

Yes. 23…♘xg4+ 24 fxg4 ♕f6+ 25 ♔g3 h5 and now:

1) 26 ♕f2 h4+.

2) 26 ♘h2 hxg4 27 ♖gf1 ♕h4+ 28 ♔f4 g5 mate.

3) 26 ♘d2 hxg4 27 ♖h1 ♕e5+28 ♔f2 g3+ etc.

4) 26 ♕d2 hxg4 27 ♕d4 ♖e5 28 ♖xe4 ♕h4+ 29 ♔f4 g5 mate.

5) 26 ♖h1 hxg4 27 ♖xh8 ♖xh8 and wins.

6) 26 g5! ♖xg5+ 27 ♔f2 ♕f6+ 28 ♔g3 ♖e5! 29 ♘d2 ♕g5+ 30 ♔f2 ♖f5+ and wins.

11: Euwe-Reshevsky, World Championship Match Tournament 1948. Yes.

1) 45…♘h3 46 ♖xh1 ♕xh1+ 47 ♔e2 ♕h2+ 48 ♘f2.

2) 45…♖xg1+ 46 ♕xg1 ♕h3+ 47 ♔f2.

3) 45…♘d5 46 ♖e2 ♖xg1+ 47 ♕xg1 ♕xe5 48 ♕c5!.

In all three variations White retains his extra material.

12: Alekhine-Koltanowsky, London 1932.

Yes, he can. 22 ♕xc7 ♖xc7 23 ♖xd6 and now:

1) 23…♗xb3? 24 ♕xf6+ and 25 ♖xb3, etc.

2) 23…♘d4? 24 ♘xd4, etc.

3) 23…♕c4 24 ♘xc5!, etc.

4) 23…♘d8 24 ♖f3 ♖f7 25 ♘xc5, etc.

5) 23…♗f7 24 ♖xf6! ♘d4 25 ♘xd4 cxd4 26 ♘xc7 ♔xf6 27 ♖f3+, etc.

6) 23…♖e8 24 ♔xc5 ♘d8 25 b4 ♘f7 26 ♖xe6, etc.

7) 23…♔f7 24 ♖f3 ♔e7 25 a4 ♕b6 (best) 26 ♖xe6+ ♔xe6 27 ♘xc5+ ♔d6 (or 27…♔f7 28 ♕xf6+ ♔g8 29 ♘e6) 28 ♕xf6+ ♔xc5 29 ♖c3+ ♔b4 30 ♕d6+ and wins.

8) 23…♗c4 24 a4 ♕xa4 25 ♘xc5 wins.

13: Neikirch-Botvinnik, Leipzig Olympiad 1960.

White's a5-rook and bishop are ineffective. Moreover, White's back rank is weak and Black has pressure on the centre files and the long white diagonal. Black won by 23…♖xd6 24 ♕xd6 ♕d8! 25 ♕xe6+ ♖f7 26 ♕e1 ♖e7 0-1.

14: Kan-Riumin, 8th USSR Championship 1933.

White has great pressure on the g-file where his major pieces are trebled. His bishop is also a strong piece, as the black bishop cannot defend h7, which will be threatened after ♗b1 and ♕c2. White won by 30 h5! h6 31 ♖g6 ♖e8 32 ♗b1! ♖g8 33 ♖xh6+ 1-0.

15: Keres-Szabo, Hastings 1954/5.

White has the h-file and there are weaknesses in Black's position at e7 and e6. The knight is offside and can be in danger in some variations. White played 21 axb5 ♕xb5 (or 21…♖h8 22 ♖xh8 ♖xh8 23 ♕c3 ♘b7 24 ♕e3 with an extra pawn and pressure) 22 ♕d2! g5 23 ♕e3 ♕d7 24 ♗g4 (24 ♕d3 should also win) 24…♕c7 (24…♕xg4? loses to 25 ♕xe7+ and 26 ♖h7+) 25 ♗f5 ♔f7 (25…♖h8 26 ♖xh8 ♖xh8 27 ♖xa5! ♕xa5 28 ♕xe7+ mating) 26 ♖h7+ ♔e8 28 ♖ah1 ♕b7 29 ♖h8 1-0.

16: Smyslov-Golombek, Venice 1950.

Black has a weak square at d6. White played 19 c5! which also reduces still further the mobility of the black bishop. The game continued 19...♘d5 20 ♘e4 ♗e8 21 ♘d6! b6 22 ♕f3 and White soon forced a win.

17: Panov-Yudovich, Trade Union Championship, Moscow 1936.

White's kingside is not well defended by pieces, for example he lacks the usual knight at f3. Black played dynamically with 14...d5!! 15 exd5 ♕xe5 16 g3 ♕h5 17 h4 ♗xh4! 18 ♔g2 ♘xe3+ 19 ♕xe3 ♗g5! and 20...♗h3+.

18: Zhukhovitsky-Poliak, Kiev 1936.

Black's pieces are not well placed and his king is exposed. White played 17 b4 ♗xb4 18 ♕b5! ♕xc3 19 ♗d2 ♕xd2 20 ♖xd2 ♗xd2 21 ♕xd7 ♗xe3+ 22 ♔f1 and White stands better. There is a threat of 23 ♕f5+ winning the knight, and Black's rooks are still out of play.

19: Levenfish-Botvinnik, Moscow 1937.

White wrongly played 20 ♘b1 followed by 21 ♗a3 and later ♘f3. His correct plan was the immediate 20 e4! dxe4 21 ♘xe4 ♘d5 22 ♘c3 with equality.

20: Smyslov-Keres, Moscow 1948.

White played b4, followed by ♘h4, f3, ♘g2, ♗f2 and then e4 occupying the centre with his pawns without allowing Black to exchange minor pieces.

21: Lundin-Ståhlberg, Margate 1936.

White should open the centre by 14 e4!. After 14...dxe4 15 ♘xe4 his bishops generate many threats. The game

continued 15...♘d5 16 ♘kd6 ♕xd6 17 ♖ad1 ♖ad8 18 ♖d4 ♕b6 19 ♖fd1 and White soon won.

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